

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	:	Confirmation No.: 5047
	:	
Irah H. Donner	:	Group Art Unit: 3692
	:	
Serial No. 09/839,301	:	Examiner: Poinvil, Frantzy
	:	
Filed: April 23, 2001	:	Docket No.: 114953.402US2 (051819.1200)
For:		
COMPUTER ASSISTED METHOD OF PERFORMNG INTELLECTUAL PROPERTY (IP) AUDIT OPTIONALLY OVER NETWORK ARCHITECTURE		

**APPEAL BRIEF UNDER 37 C.F.R. §1.192**

Mail Stop Appeal Brief - Patents  
Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

This is an appeal from the decision of Examiner Frantzy Poinvil, Group Art Unit 3692, mailed March 22, 2007, hereinafter "Final Office Action," rejecting claims 15-55 in the present application and making the rejection final.

**I. REAL PARTY IN INTEREST**

The real party in interest of the instant application is Renaissance Group IP Holdings, LLC, having its principal place of business at 3350 Riverwood Parkway, Suite 800, Atlanta, GA 30339.

**II. RELATED APPEALS AND INTERFERENCES**

This is an appeal of an application that is a continuation of U.S. Application No. 09/518,681 filed March 3, 2000, now U.S. Patent No. 6,263,341. U.S. Patent No. 6,263,341 is a

continuation of U.S. Application No. 08/811,302 filed March 4, 1997, now U.S. Patent No. 6,154,725. U.S. Patent No. 6,154,725, is a continuation-in-part of U.S. Application No. 08/161,816 filed on December 6, 1993. A rejection of U.S. Application No. 08/161,816 was reversed by Board of Appeals and Interferences, which resulted in the issuance of U.S. Patent No. 5,997,907.

### **III. STATUS OF THE CLAIMS**

Claims 1-15 stand cancelled. The Final Office Action has rejected claims 15-55, and Applicant hereby appeals the rejection of claims 15-55. Applicant respectfully submits that the rejections of record are clearly not proper.

### **IV. STATUS OF AMENDMENTS**

No amendments have been made or requested since the mailing of the Final Office Action and all amendments submitted prior to the Final action have been entered. A copy of the current claims is attached hereto as Exhibit A.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Example embodiments of the claimed subject matter, among others, are summarized below with reference numbers and references to the written description ("specification") and drawings. The subject matter described below appears in the original disclosure at least where indicated and may further appear in other places within the original disclosure.

Embodiments according to independent claim 15 describe a computer assisted process for determining an estimated value of an intellectual property portfolio. (See, e.g., Figs. 1-9; p. 24, line 18 – p. 26, line 29; p. 11, lines 13-26). The process comprises the step of storing, by a

computer, (see, e.g., Figs. 7, 8 and 9; p. 26, lines 13-20; p. 11, lines 13-26), first objectively determinable characteristics of representative intellectual property portfolios and objectively determinable values corresponding to each of the representative intellectual property portfolios. (See, e.g., items 6, 8 and 12 in Fig. 1; items 16 and 22 in Fig. 2; p. 11, lines 13-26). The first objectively determinable characteristics and the objectively determinable values form a baseline against which to assess the estimated value of the intellectual property portfolio. (See, e.g., items 4, 5, 6, 8 and 12 in Fig. 1; item 16, 18 and 22 in Fig. 2; p. 11, lines 13-26).

The process further comprises the step of analyzing the intellectual property portfolio to determine second objectively determinable characteristics of the intellectual property portfolio to be estimated. (See, e.g., item 4, 5 and 6 in Fig. 1; items 14, 16 and 18 in Fig. 2; indicator collection organizing device and indicator weighing device in Figs. 3 and 5; indicator collection device and indicator formatting device in Fig. 4; p. 11, lines 13-26). The process further comprises deriving first information representing the second objectively determinable characteristics of the intellectual property portfolio to be estimated responsive to the analyzing step. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises retrieving second information representing the first objectively determinable characteristics and the objectively determinable values of the representative intellectual property portfolios. (See, e.g., item 6, 8 and 12 in Fig. 1; item 16 and 22 in Fig. 2; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). The process further comprises comparing the first information received from the deriving step to the second information received from the retrieving step. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). The comparing step produces an estimated value of the intellectual property portfolio when the first information of the intellectual property portfolio is

statistically similar to the second information of one of the representative intellectual property portfolios. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26).

Embodiments according to independent claim 28 describe a computer assisted process for determining an estimated value of an intellectual property portfolio. (See, e.g., Figs. 1-9; p. 24, line 18 – p. 26, line 29; p. 11, lines 13-26). The process comprises a step of analyzing the intellectual property portfolio. (See, e.g., item 4, 5 and 6 in Fig. 1; items 14, 16 and 18 in Fig. 2; indicator collection organizing device and indicator weighing device in Figs. 3 and 5; indicator collection device and indicator formatting device in Fig. 4; p. 11, lines 13-26). The process further comprises a step of deriving first information responsive to the analyzing step based upon the intellectual property portfolio. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises retrieving, by a computer, empirical data relating to known intellectual property portfolios. (See, e.g., items 6, 8 and 12 in Fig. 1; items 16 and 22 in Fig. 2; p. 11, lines 13-26). The process further comprises comparing the first information derived in the deriving step to the empirical data retrieved in the retrieving step. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). This comparison produces an estimated intellectual property worth indicator indicating the worth of the intellectual property portfolio. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26).

Embodiments according to independent claim 41 describe a process for determining an estimated value of an intellectual property portfolio. (See, e.g., Figs. 1-9; p. 24, line 18 – p. 26, line 29; p. 11, lines 13-26). The process comprises a step of analyzing the intellectual property

portfolio and equivalents thereof. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises deriving first information responsive to the analyzing step based upon the intellectual property portfolio and equivalents thereof. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises retrieving empirical data relating to known intellectual property portfolios and equivalents thereof. (See, e.g., items 6, 8 and 12 in Fig. 1; items 16 and 22 in Fig. 2; p. 11, lines 13-26). The process further comprises comparing the first information derived in the deriving step to the empirical data retrieved from the retrieving step. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). The comparing step produces an intellectual property worth indicator indicating the worth of the intellectual property portfolio and equivalents thereof. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). The intellectual property includes information obtained from at least one of a patent, a trademark, technical literature, a copyright, legal reporter information, current events and an intellectual property status information. (See, e.g., p. 11, line 27 – p. 13, line 24).

Embodiments according to independent claim 42 describe a computer assisted process for determining at least one of a financial quality and financial quantity of an intellectual property portfolio. (See, e.g., Figs. 1-9; p. 24, line 18 – p. 26, line 29; p. 11, lines 13-26). The process comprises a step of analyzing the intellectual property portfolio stored in an intellectual property database. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises retrieving, by a computer, quality data relating to known intellectual property portfolios. (See, e.g., items 6, 8 and 12 in Fig. 1;

items 16 and 22 in Fig. 2; p. 11, lines 13-26). The process further comprises comparing the information derived in the deriving step to the quality data retrieved from the retrieving step. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). The comparing step determines an intellectual property factor indicating the at least one of the financial quality and the financial quantity of the intellectual property portfolio. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26).

Embodiments according to independent claim 55 describe a computer assisted process for determining at least one of an estimated quality and quantity of an intellectual property portfolio. (See, e.g., Figs. 1-9; p. 24, line 18 – p. 26, line 29; p. 11, lines 13-26). The process comprises a step of analyzing the intellectual property portfolio stored in an intellectual property database. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises deriving information responsive to the analyzing step based upon the intellectual property portfolio. (See, e.g., item 6, 8 and 12 in Fig. 1; items 22, 18 and 16 in Fig. 2; p. 11, line 27 – p. 13, line 24; p. 11, lines 13-26). The process further comprises the step of retrieving, by a computer, quality data relating to known intellectual property portfolios, and equivalents thereof. (See, e.g., items 6, 8 and 12 in Fig. 1; items 16 and 22 in Fig. 2; p. 11, lines 13-26). The process further comprises comparing the information derived in the deriving step to the quality data retrieved from the retrieving step. (See, e.g., item 10 in Fig. 1; items 20 and 24 in Fig. 2; comparison device in Figs. 3 and 4; comparison processor in Fig. 6; p. 13, line 25 – p. 14, line 9; p. 11, lines 13-26). The intellectual property database includes at least one of a patent database, a trademark database, a technical literature database, a copyright database, a legal reporter database, a

current events database and an intellectual property status database, and equivalents thereof.  
(See, e.g., p. 11, line 27 – p. 13, line 24).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 15-55 stand rejected as allegedly obvious over the combination of *Hough* (U.S. Pat. No. 5,414,621) considered with *Ariel Pakes*, "Patents as options: Some estimates of the value of holding European patent stocks," *Econometrica*, Vol. 54 (July 1986), pages 775-784.

## **VII. ARGUMENT**

### **A. Rejection of Independent Claim 15**

The Final Office Action rejected independent claim 15 as allegedly obvious over the combination of *Hough* (U.S. Pat. No. 5,414,621) (hereinafter "*Hough*") considered with *Ariel Pakes*, "Patents as options: Some estimates of the value of holding European patent stocks," *Econometrica*, Vol. 54 (July 1986), pages 775-784 (hereinafter "*Pakes*").

The framework of the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), which was reaffirmed in *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007). Obviousness is a question of law based on underlying factual inquiries, and the factual inquiries enunciated by the Court are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art;  
and
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. For at least the

reasons set forth herein, Applicant respectfully disagrees with the rejection and requests that the rejection be reversed.

### 1. Discussion of the References

*Hough* describes a "system and method for computing a comparative value of **real estate**." (See Title) (emphasis added). According to the *Hough* abstract, this method can be accomplished in the following manner:

A price/tax factor is computed for each comparable property by dividing the sale (or sold) price of the comparable property by its base tax. The price/tax factor for each comparable property is then multiplied by the base tax of the subject property to generate a net comparative value for each comparable property. To take into account appreciation for recently sold properties, an average appreciation is obtained for the area in which the subject and comparable properties are located. The average appreciation is pro rated to determine the comparative value for each comparable property. On the basis of the comparative values and other pertinent information, the value of the subject property may be set by a real estate agent, bank, appraiser, etc.

*Pakes* describes an academic methodology for valuing the option of whether to hold a patent based on economics. Specifically, *Pakes* states the following on p. 755:

This paper presents and then estimates a model, which allows us to recover the **distribution of returns** from holding patents at each age over the lifespan of patents **from information on patent renewals**.

Thus, *Pakes* relates to using patent renewals to determine an estimate of distribution of returns from holding a patent. *Pakes* does not present information regarding estimating the value of a patent itself.

### 2. No Reasonable Expectation of Success

Applicant respectfully submits that the Examiner has failed to show any reasonable expectation of success for the combination of *Hough* and *Pakes*. A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known



methods **with no change in their respective functions**, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 435 (1976) (emphasis added). Also, if the **proposed modification or combination of the prior art would change the principle operation of the prior art invention** being modified, then the teachings of the references are **not sufficient** to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (emphasis added).

The Examiner alleged:

[O]ne of ordinary skill in the art desiring to objectively determine the **value of intellectual property portfolio** would have **turned to the teachings of Pakes in order to provide the proper variables** related to a patent or patent applications for incorporating such in the method and system of *Hough*.

(Final Office Action, p. 4) (emphasis added). However, *Pakes* does not teach the proper variables, much less "objectively determinable values corresponding to each of the representative intellectual property portfolios."

Specifically, the Examiner contends that because *Pakes* is entitled "Patents as options: Some estimates of the value of holding European patent stocks," it suggests estimating the value of patents. (See page 2 of the Final Office Action). However, the title of *Pakes* describes the **value of holding** the patent. In other words, the title describes valuing **an option, not intellectual property**. The option being whether to hold a patent by continuing to pay maintenance fees. Estimating the "value of intellectual property portfolios" is not the same thing as estimating the value of an option.

Further, the Examiner states that in determining whether maintenance fees should be paid, "*Pakes* determines the current value of the patent and whether the patent would provide future returns." (See page 4 of the Final Office Action). Appellant respectfully disagrees. *Pakes*

only teaches the latter because it calculates the returns based on the investment in the renewal fee. *Pakes* does not teach using the value of the patent itself in the returns calculation. Pages 764 and 776, which were cited by the Examiner, illustrate this point. *Pakes*, p. 764 discloses the Markov process which "generates the returns from holding a patent." Similarly, p. 776 merely discloses a distribution of returns from holding the patents and not the actual value of the patents. The Examiner has not shown how these pages disclose valuing intellectual property itself nor has he indicated which variable in the Markov process formula allegedly represents the value of the patents.

Since *Pakes* teaches valuing an option instead of valuing intellectual property, it does not say what the Examiner alleges it discloses. Thus, a person of ordinary skill in the art would be forced to change the function of the method disclosed in *Pakes* to calculate the value of property instead of the returns from holding it. Because this person of ordinary skill would have had to change *Pakes*, under the standard from *KSR* cited above, there can be no reasonable expectation of success for the combination of *Hough* and *Pakes*. Moreover, changing *Pakes* to value patents instead of options would change the principle operation of *Pakes* which is calculating the returns for paying maintenance fees.

In addition, though the Examiner alleged that a person of ordinary skill in the art would have turned to the teachings of *Pakes* in order to provide the proper variables, the Examiner also contends that the type of data does not provide patentable differences when viewing the system of *Hough*. Yet, the type of data is different in important ways. For example, the number of references cited or number of classes searched can be gathered for a patent and a high value assigned to the indicator when the patent lists many classes or many cited references. There is simply no analog for this type of data for real property. Even a neighborhood is not similar to a

class because a house generally only lies in one neighborhood. The type of data does provide a patentable difference over *Hough*.

Furthermore, even if the only difference was the type of data, this application is not completely shown or suggested by the prior art because *Pakes* does not disclose the data used in valuing intellectual property. *Pakes* discloses valuing options. Therefore, in any case, the claims patentably distinguish over *Hough* and *Pakes*.

Moreover, there is also no reasonable expectation of success because *Pakes* is flawed. *Pakes* does not consider that money used in renewing patents may alternatively be used for other purposes that could obtain greater return. In other words, *Pakes* ignores the subjective opportunity cost in his methodology. It is highly possible that valuable patents were never renewed because the owner had a better use of his money. Though using the money to renew a patent might have had a significant return, the owner may have had an even more profitable opportunity. Thus, it is highly possible that the *Pakes* methodology places a premium or is skewed in favor of patent owners that do not effectively use their limited resources, except for paying patent renewals. More specifically, patents that have not been renewed are worth nothing. Thus, overall, *Pakes* cannot be used at all to estimate the value of the intellectual property itself.

*Pakes* also assumes that payment of the renewal fees must be based on a direct correlation to economic return that fully supports the renewal fee payments. However, *Pakes* does not even consider that there may be a strong percentage of renewal fees that are paid because the incremental cost to the owner is not significant with respect to the cost already incurred in obtaining the patent. In addition, *Pakes* does not consider that renewal fees may be paid even if the patents represent a losing proposition because the cost of the renewal might not be considered significant to the owner. *Pakes* further does not consider that the patents

themselves may not have direct revenue uses, but might be related to existing income streams that justify the renewal fees, even though the patents themselves do not support the renewal fees.

Thus, because *Pakes* does not disclose valuing intellectual property and also is flawed, there could not be a reasonable expectation of success. Accordingly, the rejection of claim 15 as obvious in view of the combination of *Hough* and *Pakes* should be reversed.

### 3. The Examiner has Failed to Ascertain the Level of Ordinary Skill in the Art

"The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991). The examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in the remote arts, or to geniuses in the art at hand. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984). To be objective, the examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made.

On p. 6, the Final Office Action alleges that "it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of [...] intellectual property." This statement assumes that this person of ordinary skill in the art would have expertise both in valuing real estate and in valuing intellectual property. Appellant asserts that such a person would be a person of **extraordinary** skill and is contrary to the standard. The data is not interchangeable because specialized skills are needed to choose the appropriate data to evaluate. In other words, a real estate agent would not likely know what data to use to value a

patent and would not learn them by reading *Pakes*. Likewise, a patent agent would probably be befuddled by the meanings of "phase value" and "assessment percentage" and not be aware of analogous characteristics for a patent.

Accordingly, because the Examiner has failed to ascertain the level of ordinary skill in the art, he has not completed the *Graham* factual inquiries. Therefore, obviousness rejection of claim 15 was improper and should be reversed.

#### **4. No Reason to Combine Real Property Prior Art with Intangible Property Prior Art**

The Examiner has failed to provide a reason to combine prior art about real property with prior art regarding intangible property. The Examiner merely made the following conclusory statements regarding the alleged motivation to combine. First, The Final Office Action on p. 6 alleged:

[I]t would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

Second, the Final Office Action on p. 7 alleged: "The motivation would have been to assess the value of an intellectual property." The Examiner failed to provide any citations in either *Pakes* or *Hough* for these apparent motivations. Also, these statements fail to supply any motivation because valuing an intellectual property portfolio is possible without using the techniques *Hough* has described. Furthermore, it is not clear what the Examiner means by "in a desired type of environment" nor is it clear that the Examiner has alleged that even to be a motivation because the motivation appears to be "to determine the value of a subject property such as an intellectual property." One does not need the teachings of *Hough* "to determine the value of a subject property such as an intellectual property." So, not only does the alleged

motivation fail to come from *Hough* or *Pakes*, these statements by the Examiner simply fail to be motivating in general.

Furthermore, because *Pakes* and *Hough* are so unrelated because one discusses valuing options relating to intangible property and the other describes valuing real property, it seems that a motivation to combine coming from a reference is even more important. In other words, real property and intangible property are so different that it seems unlikely that combining prior art regarding them would be obvious to a person of skill in the art. For example, to highlight some of the differences, real property does not expire the way patents or copyrights do because the government grants these intellectual property rights for a limited time. Furthermore, an adjudication of invalidity could extinguish the patent, whereas there is no analog in the area of adjudication regarding real property. Likewise, frequency of citations may indicate value for a patent, whereas that concept is irrelevant for real property.

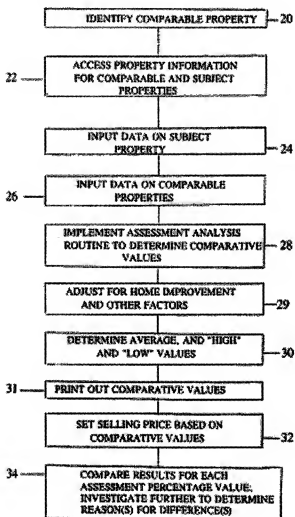
Therefore, the Examiner has failed to establish a reason to combine prior art about real property and prior art regarding intangible property, and hence has provided no reason to combine *Pakes* and *Hough*. Therefore, the obviousness rejection of claim 15 is improper and should be reversed.

## **5. Resulting Combination Still Does Not Include All Elements of the Claims**

Even if *Pakes* and *Hough* were combined, the combination of *Pakes* and *Hough* would still fail to describe all the elements in the embodiment in claim 15. As discussed above, *Hough* describes a "system and method for computing a comparative value of real estate" (*See Hough*, Title), and *Pakes* describes valuing an option, the option of whether to pay patent maintenance fees. Thus, at a high level of abstraction, the resulting combination of *Pakes* and *Hough* is merely

a system and method for computing a comparative value of an option. This is not the combination that Applicant has claimed.

Even at lower levels of abstraction, the combination fails to describe the features of claim 15. In other words, the computations disclosed in *Hough*, as described in Figs. 2 and 3, with data regarding the value of an option plugged in, still fails to describe the features of claim 15. Specifically, Fig. 2 is depicted below:



For example, Fig. 2, item 20 states "identify comparable property" and col. 4, lines 46-60 further describe this step as:

The first step which is necessary in the first embodiment is to **identify comparable property** (recently sold and currently for sale) in the same tax district and class (and hence same tax rate) as the subject property, shown at step 20. **This may be done through the use of the table** of data stored in the storage bank 17, as will be explained hereinafter, **or by "in-the-field" investigations**. It is preferable, but not necessary, that the comparable properties be in the **same general location or neighborhood**, and perhaps even the same street, to serve as the best "comparable properties".

(emphasis added). However, claim 15 recites:

15. A computer assisted process for determining an estimated value of an intellectual property portfolio, the process comprising the steps of:

(a) storing, by a computer, first objectively determinable characteristics of representative intellectual property portfolios and objectively determinable values corresponding to each of the representative intellectual property portfolios, the first objectively determinable characteristics and the objectively determinable values forming a baseline against which to assess the estimated value of the intellectual property portfolio;

(b) analyzing the intellectual property portfolio to determine second objectively determinable characteristics of the intellectual property portfolio to be estimated;

(c) deriving first information representing the second objectively determinable characteristics of the intellectual property portfolio to be estimated responsive to said analyzing step (b);

(d) retrieving second information representing the first objectively determinable characteristics and the objectively determinable values of the representative intellectual property portfolios; and

(e) **comparing** the first information received from said deriving step (c) to the second information received from said retrieving step (d) producing an estimated value of the intellectual property portfolio **when the first information of the intellectual property portfolio is statistically similar to the second information of one of the representative intellectual property portfolios**.

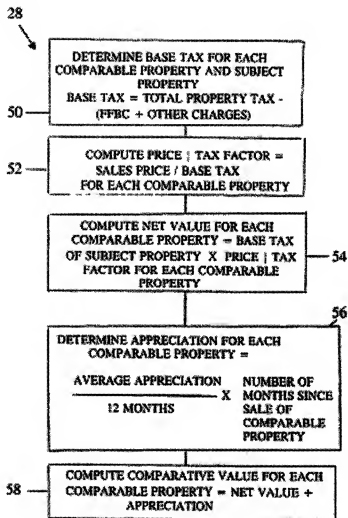
(emphasis added).

Yet, *Hough* teaches selecting the properties that are comparable to the subject property without doing any math, whereas claim 15 recites "comparing ... when the first information of the intellectual property portfolio is statistically similar to the second information of the one of the



representative intellectual property portfolios." *Hough* does not teach using statistics to determine similarity. Rather, *Hough* teaches using a table, doing "in-the-field" investigations or looking at the neighborhoods to "identify" comparable properties. This is simply not statistics. Therefore, for at least the reason that *Hough* fails to disclose statistical similarity, the combination of *Pakes* and *Hough* fails to describe the features of claim 15.

The statement that the combination of *Pakes* and *Hough* fails to describe the features of claim 15 is also true with respect to the computations disclosed by *Hough* in Fig. 3. Fig. 3 is depicted below.



When one tries to plug in data regarding valuing an option relating to a patent into the computations disclosed by *Hough*, the result is nonsensical. The concept of appreciation is meaningless with respect to options, and moreover, it is not helpful regarding patents. Patents are probably more likely to depreciate because new technologies may arise that replace what was claimed in a patent, rendering a patented technology obsolete. Also, patents expire, and thus, become worthless at the end of the patent term. Furthermore, the concept of base tax is also irrelevant with respect to patents and options. It is not clear how one would plug in information regarding an option into a base tax calculation. So, even if calculating an average could be considered a statistical calculation, the concepts of appreciation and base tax render the combination inoperable to calculate statistical similarity, and thus, the combination fails to disclose the features of claim 15.

The Final Office Action on p. 3-4 alleged:

the method and system [of *Hough*] perform similarly as the applicant's claimed invention with the ***only difference being the type of data processed***. As such the Examiner had stated that since the means and steps found in *Hough* are similar to that of the claimed invention in determining the value of a real estate property. Introducing different types of data for performing the same steps or function would not provide patentable differences, as the result would only apply to the type of associated data.

(emphasis added). The Final Office Action on p. 6-7 alleged:

The only difference between the claimed invention and the teachings of *Hough* is the type of data being claimed. ***It is noted that the type of data does not affect the functioning of the system of Hough since in memory or computer manipulation, data is only data.*** The kind of data does not affect the functioning of the system. Thus, it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

(emphasis added). Applicant disagrees. As was demonstrated above, there are more differences than simply the type of data processed. *Hough* not only values real estate instead of intellectual

property, it also does not determine similarity using statistics, as discussed above. Furthermore, computations such as average appreciation and the ones involving base tax simply do not apply in the case of valuing intellectual property. So, not just the data is different, the computations are also different.

Because the Examiner has failed to establish that the combination discloses all the features of claim 15 at either a high or low level of abstraction, the Examiner has not proven that claim 15 is obvious. Therefore the rejection of claim 15 should be reversed.

#### **B. Dependent claims 16-27**

Since independent claim 15 is allowable for at least the reasons discussed above, dependent claims 16-27 are allowable because each depends from an allowable claim. See *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Also, for at least the reason that dependent claims 16-27 contain allowable subject matter regardless of whether claim 15 is allowed, the rejection of claims 16-27 should be reversed.

Regarding claim 16, for at least the reason that the combination of *Hough* and *Pakes* does yield predictable results, claim 16 is not obvious. The Office Action on p. 7 noted that "intellectual properties include patents, trademarks, trade secrets and copyrights" and that "substituting one of these types of data into the system of *Hough* would have been obvious to one of ordinary skill in the art at the time of the invention with the motivation noted above and also to widen the scope of *Hough* by estimating the value of a plurality of types of properties." However, to reject a claim based on the substitution rationale, the Office Action must resolve the *Graham* factual inquiries as provided in MPEP 2143. Specifically, the MPEP provides:

Office personnel must articulate the following:

- (1) a finding that the prior art contained a device(method, product, etc.) which differed from the claimed device by the substitution

- of some components (step, element, etc.) with other components;
- (2) a finding that the substituted components and their functions were known in the art;
  - (3) a finding that one of ordinary skill in the art would have substituted one known element for another, and the results of the substitution would have been predictable; and
  - (4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain the conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that the substitution of one known element for another yields predictable results to one of ordinary skill in the art. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art.

The Office Action has failed to establish that substituting "patents, trademarks, trade secrets and copyrights" into the system of *Hough* would yield predictable results. *Hough* involves calculations of tax assessments, price/tax factors, phase value etc. for real estate that are irrelevant for determining the value of intellectual property. These calculations would not result in valuing an intellectual property portfolio and thus, the substitution of intellectual property in the system of *Hough* would not yield predictable results nor the features of claim 16. Therefore, for at least the reason that the substitution alleged does not yield predictable results, claim 16 is not obvious. Thus, the rejection of claim 16 should be reversed.

Regarding claim 17, for at least the reason that the Office Action has used hindsight including conclusory statements as the only reason for the rejection, the rejection of claim 17 should be withdrawn. In its rejection, the Office Action alleged numerous modifications of *Hough* apparently motivated by various reasons for which the Examiner has provided no citation. First, a person of skill in the art would have to have been motivated to value intellectual property instead of real estate. (Office Action, p. 7 (discussing base claim 15)). Next, the person of skill in the art would have to have been motivated to look for data in at least one of a patent database, a trademark database, a copyright database, a technical literature database, a legal reporter

database, a current events database and an intellectual property status database. (Office Action, p. 8). Finally, the person would have to have been motivated to make a better assessment of the estimated value of an intellectual property portfolio using such data. (Office Action, p. 8). However, the Office Action has failed to cite a reference that would teach or suggest to a person of skill in the art to do any of these numerous modifications of *Hough*. The Office Action has not even cited a disclosure in a reference regarding an intellectual property related database, much less using that database to value intellectual property. Rather, the Office Action has merely used hindsight and conclusory statements to reject claim 17. For at least this reason, the obviousness rejection of claim 17 should be reversed.

Regarding claim 18, the Office Action alleges that because "*Hough* teaches taking into consideration various attributes such as the number of bedrooms, the neighborhood, age of the house, and other features and/or options related to a subject real estate property in determining its value," it would have been obvious to one of ordinary skill in the art to use attributes or characteristics related to intellectual properties. Furthermore, beyond alleging that a person of skill in the art would have been motivated to modify *Hough* to value an intellectual property portfolio, the Office Action appears to be alleging that this person would have known what attributes of intellectual property indicate value in order to make this rejection. In other words, this person would have known to use the following "first objectively determinable characteristics" including:

patent information derived from the patents in the portfolio comprising at least one of the following: number of claims, length of independent claims, number and dates of references cited, number of classes searched, legal status of the patents, number of years until each of the patents expire, group which examined each of the patents, domestic priority, and foreign priority.

However, the Office Action has failed to cite a reference that identifies any of these characteristics as being used to determine the value of an intellectual property portfolio. *Pakes*

merely discusses valuing an option as discussed above, and cannot be used to cure the deficiencies of *Hough*. Here again, for at least the reason that the Office Action has used hindsight and conclusory statements to reject a claim, the obviousness rejection of claim 18 should be reversed.

Regarding claim 19, the Office Action stated "as per the limitation of the "frequency with which the patents have been cited as references for other patents", *Hough* discloses considering features of other real estate properties and which other kinds or similar properties were sold in estimating the value of a subject property." (Office Action, p. 9). The Office Action also cited Figures 15-16 and 18-19. The disclosure and figures in *Hough* have nothing to do with the "frequency with which the patents have been cited as references for other patents" because the concept of citation is completely irrelevant in real estate. *Hough* simply does not describe this feature. Also, *Pakes* merely discusses valuing an option as discussed above and does not discuss using frequency of citation as a characteristic, and thus, *Pakes* cannot be used to cure the deficiencies of *Hough*. Here again, for at least the reason that the Office Action has used hindsight and conclusory statements to reject a claim, the obviousness rejection of claim 19 should be reversed.

Furthermore, Appellant requested that the Examiner provide a prior art reference describing the "frequency with which the patents have been cited as references for other patents" feature in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 19 should be withdrawn.

Regarding claim 20, the Office Action alleges that "*Hough* teaches determining differences in value by weighing the values of the subject property and comparing such with the values of

other properties and/or other recently sold properties." This is a conclusory statement that lacks support because the Office Action has not cited any portion of *Hough* discussing this feature. The Office Action has merely paraphrased the claim in order to reject it. Thus, for at least the reason that the Office Action has used hindsight and conclusory statements to reject this claim, the obviousness rejection of claim 20 should be reversed.

Furthermore, Appellant requested that the Examiner provide a prior art reference describing using weighing techniques for different variables in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 20 should be withdrawn.

Regarding claim 21, the Office Action on pages 5-7 failed to establish that *Hough* or *Pakes* discusses the features of claim 21. Claim 21 recites:

21. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15,

wherein the intellectual property portfolio includes issued patents, and at least one of trademarks and copyrights, and

wherein the first objectively determinable characteristics are derived by analyzing the issued patents, and the at least one of trademarks, trade secrets and copyrights.

For at least the reason that the Office Action has failed to address all the limitations of claim 21, the claim cannot be found obvious. Specifically, the Office Action has failed to complete at least two of the *Graham* factual inquiries. Those inquiries being "determining the scope and contents of the prior art" and "ascertaining the differences between the claimed invention and the prior art" as discussed above. For example, it has completely ignored the "wherein the intellectual property portfolio includes issued patents, and at least one of trademarks, trade secrets and copyrights" feature. Thus, for at least the reason that the *Graham* factual inquiries have not been completed, the rejection of claim 21 should be reversed.

Regarding claim 22, the Office Action alleges that "Hough teaches the estimated value of the subject properties is derived substantially independent of accounting valuation techniques including cost, market and income approaches." This rejection is even more egregious than that of claim 20 because the Office Action has merely recited the language of claim 22 in order to reject it. Furthermore, it has failed to cite any section of *Hough* that teaches the features. In fact, *Hough* contradicts this statement because *Hough* actually uses standard accounting techniques for valuing real property because it considers tax information, which is standard. Thus, for at least the reason that the Office Action has used hindsight and conclusory statements to reject this claim, the obviousness rejection of claim 22 should be reversed.

Regarding claim 23, the Office Action on p. 9 alleges that "Hough teaches the first information is statistically similar to the second information of one of the representative real estate properties" in col. 4, line 5 to col. 7, line 60. The Office Action also asserted that a curve fitting technique or a standard deviation technique is well known in the art. Furthermore, the Office Action also alleged that it would have been "obvious to one of ordinary skill in the art to use in the system of Hough in order to determine a closest match between one property and the property being evaluated." However, the language of claim 23 recites:

23. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the first information of the second intellectual property portfolio **is determined to be statistically similar** to the second information of one of the representative intellectual property portfolios **utilizing at least one of a curve fitting technique and a standard deviation technique.**

(emphasis added). Yet, *Hough* teaches selecting the properties that are comparable to the subject property before doing any math, whereas in claim 23 statistical similarity is determined by "utilizing at least one of a curve fitting technique and a standard deviation technique." Specifically, *Hough* states in col. 1, lines 41-46:



Briefly, the present invention relates to a system and method for **determining comparative values of comparable properties** based on combining and comparing assessment data and sales data of the comparable properties to ultimately determine a value for a particular property, called the subject property.

(emphasis added). In addition, *Hough*, col. 4, lines 45-57 provide:

Turning to FIG. 2, a general outline of the steps according to the present invention are shown. The first step which is necessary in the first embodiment is **to identify comparable property (recently sold and currently for sale) in the same tax district and class** (and hence same tax rate) as the subject property, shown at step 20. This may be done through the use of the table of data stored in the storage bank 17, as will be explained hereinafter, or by "in-the-field" investigations. It is preferable, but not necessary, that the comparable properties be in the **same general location or neighborhood**, and perhaps even the same street, to serve as the best "comparable properties".

(emphasis added). The Office Action appears to be confusing *Hough's* "comparability" with the "similarity" of claim 23. In other words, "utilizing at least one of a curve fitting technique and a standard deviation technique" is pointless in *Hough* for determining whether properties are comparable. *Hough* discusses considering geography, tax district and class in determining comparability, and this type of information is not quantitative and thus not useful for determining statistical similarity. For example, *Hough* does not disclose using proximity, which is a measurable quantity, but rather discussed information such as same general location, tax district, and class which is not useful in curve fitting techniques or a standard deviation techniques. Thus, *Hough* does not teach the features as alleged in the Office Action, and the Examiner's assertions of what is well known in the art fail to remedy the shortcomings of *Hough*. Hence the rejection of claim 23 as obvious should be reversed.

Furthermore, Appellant disagreed with the Examiner that curve fitting techniques or standard deviation techniques are well known with respect to intellectual property valuation. Appellant requested that the Examiner provide a prior art reference describing this feature in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit

have been provided even after Appellant made this request four times. Therefore, for at least this reason, the obviousness rejection of claim 23 should be withdrawn.

Regarding claim 24, the Office Action on page 10 alleged that Figs. 12 and 15-18 of *Hough* describe "the objectively determinable values of the real estate properties include objectively determinable monetary values." However, the language of claim 24 recites:

24. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15,

wherein the first objectively determinable characteristics include first valuation indicators,

wherein the first valuation indicators are assigned an importance factor based upon predetermined criteria, and

wherein the first valuation indicators are compared to the second objectively determinable characteristics and the estimated value of the intellectual property portfolio is determined responsive to the importance factor of each of the valuation indicators.

Clearly, in the context of claim 24, the first objectively determinable characteristics, the first valuation indicators, the second objectively determinable characteristics, and the importance factor based on predetermined criteria assigned to the first valuation indicators all relate to intellectual property and not real estate. Thus, "objectively determinable values of the real estate properties" are not relevant to and cannot describe claim 24.

Furthermore, for at least the reason that the Office Action has failed to address all the limitations of claim 24, the claim cannot be found obvious. Specifically, the Office Action has failed to complete at least two of the *Graham* factual inquiries. Those inquiries being "determining the scope and contents of the prior art" and "ascertaining the differences between the claimed invention and the prior art" as discussed above. For example, it has completely ignored the "wherein the first valuation indicators are assigned an importance factor based upon predetermined criteria" feature. Thus, for at least the reason that the *Graham* factual inquiries have not been completed, the rejection of claim 24 should be reversed.

Regarding claim 25, the Office Action cited Figs. 12 and 15-18 of *Hough*. Claim 25 recites:

25. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the objectively determinable values of the representative intellectual property portfolios include objectively determinable monetary values.

In the context of claim 25, the "objectively determinable values of the representative intellectual property portfolios" are unrelated to "objectively determinable values of the real estate properties" because *Hough* describes valuing real estate and not intellectual property. Furthermore, the Office Action has failed to identify a passage in *Pakes* that discusses "objective determinable values of the representative intellectual property portfolios." Since the Office Action has failed to identify a teaching in a reference that describes the features of claim 25, the rejection of claim 25 should be reversed.

Regarding claim 26, the Office Action cited *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49. However, the language of claim 26 recites:

26. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 25, wherein the objectively determinable monetary values of the representative intellectual property portfolios are determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the representative intellectual property portfolios.

This rejection is inconsistent with the rejection of claim 25, the rejection cited Figs. 12 and 15-18 as disclosing "wherein the objectively determinable values of the representative intellectual property portfolios include objectively determinable monetary values." However, with respect to claim 26, because claim 26 relates to intellectual property, none of the items in Figs. 12 and 15-18 describe:

wherein the objectively determinable monetary values of the representative intellectual property portfolios are determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant

evaluation based upon generally acceptable accounting procedures (GAAP) of the representative intellectual property portfolios.

Furthermore, *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49 cannot remedy the deficiencies of those Figs. because those sections also describe real estate. Nor does *Pakes* cure the shortcomings of *Hough*. Therefore, because the Office Action has failed to identify a teaching in a reference that describes the features of claim 26, the rejection of claim 26 should be reversed.

Regarding claim 27, the Office Action cited *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49. However, the language of claim 27 recites:

27. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the first objectively determinable characteristics include at least one of prior adjudication values, prior license values, and prior purchase values.

This rejection is inconsistent with the rejection of claim 25, the rejection cited Figs. 12 and 15-18 as disclosing "wherein the objectively determinable values of the representative intellectual property portfolios include objectively determinable monetary values." However, with respect to claim 27, because claim 27 relates to intellectual property, none of the items in Figs. 12 and 15-18 describe "wherein the first objectively determinable characteristics include at least one of prior adjudication values, prior license values, and prior purchase values."

Furthermore, *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49 cannot remedy the deficiencies of those Figs. because those sections also describe real estate. Nor does *Pakes* cure the shortcomings of *Hough*. Therefore, because the Office Action has failed to identify a teaching in a reference that describes the features of claim 27, the rejection of claim 27 should be reversed.

Accordingly, for at least the reason that dependent claims 16-27 contain allowable subject matter as discussed above regardless of whether claim 15 is allowable, the rejection of claims 16-27 should be reversed.

### C. Rejection of Independent Claim 28

The Final Office Action rejected independent claim 28 as allegedly obvious over the combination of *Hough* considered with *Pakes*.

The framework of the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), which was reaffirmed in *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007). Obviousness is a question of law based on underlying factual inquiries, and the factual inquiries enunciated by the Court are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art;  
and
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. For at least the reasons set forth herein, Applicant respectfully disagrees with the rejection and requests that the rejection be reversed.

#### 1. Discussion of the References

*Hough* describes a "system and method for computing a comparative value of *real estate*." (See Title) (emphasis added). According the *Hough* abstract, this method can be accomplished in the following manner:

A price/tax factor is computed for each comparable property by dividing the sale (or sold) price of the comparable property by its base tax. The price/tax factor for each comparable property is then multiplied by the base tax of the subject property to generate a net comparative value for each comparable property. To take into account appreciation for recently sold properties, an average appreciation is obtained for the area in which the subject and comparable properties are located. The average appreciation is pro rated to determine the comparative value for each comparable property. On the basis of the comparative values and other pertinent

information, the value of the subject property may be set by a real estate agent, bank, appraiser, etc.

*Pakes* describes an academic methodology for valuing the option of whether to hold a patent based on economics. Specifically, *Pakes* states the following on p. 755:

This paper presents and then estimates a model, which allows us to recover the ***distribution of returns*** from holding patents at each age over the lifespan of patents ***from information on patent renewals***.

Thus, *Pakes* relates to using patent renewals to determine an estimate of distribution of returns from holding a patent. *Pakes* does not present information regarding estimating the value of a patent itself.

## 2. No Reasonable Expectation of Success

Application respectfully submits that the Examiner has failed to show any reasonable expectation of success for the combination of *Hough* and *Pakes*. A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods ***with no change in their respective functions***, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 435 (1976) (emphasis added). Also, if the ***proposed modification or combination of the prior art would change the principle operation of the prior art invention*** being modified, then the teachings of the references are ***not sufficient*** to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (emphasis added).

The Examiner alleged:

[O]ne of ordinary skill in the art desiring to objectively determine the **value of intellectual property portfolio** would have **turned to the teachings of *Pakes* in order to provide the proper variables** related to a patent or patent applications for incorporating such in the method and system of *Hough*.

(Final Office Action, p. 4). However, *Pakes* does not teach the proper variables, much less those for "determining an estimated value of an intellectual property portfolio."

Specifically, the Examiner contends that because *Pakes* is entitled "Patents as options: Some estimates of the value of holding European patent stocks," it suggests estimating the value of patents. (See page 2 of the Final Office Action). However, the title of *Pakes* describes the **value of holding** the patent. In other words, the title describes valuing **an option, not intellectual property**. The option being whether to hold a patent by continuing to pay maintenance fees. Estimating the "value of an intellectual property portfolios" is not the same thing as estimating the value of an option.

Further, the Examiner states that in determining whether maintenance fees should be paid, "*Pakes* determines the current value of the patent and whether the patent would provide future returns." (See page 4 of the Final Office Action) Appellant respectfully disagrees. *Pakes* only teaches the latter because it calculates the returns based on the investment in the renewal fee. *Pakes* does not teach using the value of the patent itself in the returns calculation. Pages 764 and 776, which were cited by the Examiner, illustrate this point. *Pakes*, p. 764 discloses the Markov process which "generates the returns from holding a patent." Similarly, p. 776 merely discloses a distribution of returns from holding the patents and not the actual value of the patents. The Examiner has not shown how these pages disclose valuing intellectual property itself nor has he indicated which variable in the Markov process formula allegedly represents the value of the patents.

Since *Pakes* teaches valuing an option instead of determining an estimated value of an intellectual property portfolio, it does not say what the Examiner alleges it discloses. Thus, a person of ordinary skill in the art would be forced to change the function of the method disclosed in *Pakes* to calculate the value of property instead of the returns from paying the renewal fee and holding it. Because this person of ordinary skill would have had to change *Pakes*, under the standard from *KSR* cited above, there can be no reasonable expectation of success for the combination of *Hough* and *Pakes*. Moreover, changing *Pakes* to value patents instead of options would change the principle operation of *Pakes* which is calculating the returns for paying maintenance fees.

In addition, though the Examiner alleged that a person of ordinary skill in the art would have turned to the teachings of *Pakes* in order to provide the proper variables, the Examiner also contends that the type of data does not provide patentable differences when viewing the system of *Hough*. Yet, the type of data is different in important ways. For example, the number of references cited or number of classes searched can be gathered for a patent and a high value assigned to the indicator when the patent lists many classes or many cited references. There is simply no analog for this type of data for real property. Even a neighborhood is not similar to a class because a house generally only lies in one neighborhood. Furthermore, the type of data affects how it is used in the calculating as is shown in the abstract of *Hough*. The type of data does provide a patentable difference over *Hough*.

Furthermore, even if the only difference was the type of data, this application is not completely shown or suggested by the prior art because *Pakes* does not disclose the data for determining the worth of an intellectual property portfolio. *Pakes* discloses valuing options. Therefore, in any case, the claims patentably distinguish over *Hough* and *Pakes*.



Moreover, there is also no reasonable expectation of success because *Pakes* is flawed. *Pakes* does not consider that money used in renewing patents may alternatively be used for other purposes that could obtain greater return. In other words, *Pakes* ignores the subjective opportunity cost in his methodology. It is highly possible that valuable patents were never renewed because the owner had a better use of his money. Though using the money to renew a patent might have had a significant return, the owner may have had an even more profitable opportunity. Thus, it is highly possible that the *Pakes* methodology places a premium or is skewed in favor of patent owners that do not effectively use their limited resources, except for paying patent renewals. More specifically, patents that have not been renewed are worth nothing. Thus, overall, *Pakes* cannot be used at all to estimate the value of the intellectual property itself.

*Pakes* also assumes that payment of the renewal fees must be based on a direct correlation to economic return that fully supports the renewal fee payments. However, *Pakes* does not even consider that there may be a strong percentage of renewal fees that are paid because the incremental cost to the owner is not significant with respect to the cost already incurred in obtaining the patent. In addition, *Pakes* does not consider that renewal fees may be paid even if the patents represent a losing proposition because the cost of the renewal might not be considered significant to the owner. *Pakes* further does not consider that the patents themselves may not have direct revenue uses, but might be related to existing income streams that justify the renewal fees, even though the patents themselves do not support the renewal fees.

Thus, because *Pakes* does not disclose valuing intellectual property and also is flawed, there could not be a reasonable expectation of success. Accordingly, the rejection of claim 28 as obvious in view of the combination of *Hough* and *Pakes* should be reversed.

### 3. The Examiner has Failed to Ascertain the Level of Ordinary Skill in the Art

"The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991). The examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in the remote arts, or to geniuses in the art at hand. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984). To be objective, the examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made.

On p. 6, the Final Office Action alleges that "it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of [...] intellectual property." This statement assumes that this person of ordinary skill in the art would have expertise both in valuing real estate and in valuing intellectual property. Appellant asserts that such a person would be a person of **extraordinary** skill and is contrary to the standard. The data is not interchangeable because specialized skills are needed to choose the appropriate data to evaluate. In other words, a real estate agent would not likely know what data to use to value a patent and would not learn them by reading *Pakes*. Likewise, a patent agent would probably be befuddled by the meanings of "phase value" and "assessment percentage" and not be aware of analogous characteristics for a patent.

Accordingly, because the Examiner has failed to ascertain the level of ordinary skill in the art, he has not completed the *Graham* factual inquiries. Therefore, obviousness rejection of claim 28 was improper and should be reversed.

#### 4. No Reason to Combine Real Property Prior Art with Intangible Property Prior Art

The Examiner has failed to provide a reason to combine prior art about real property with prior art regarding intangible property. The Examiner merely made the following conclusory statements regarding the alleged motivation to combine. First, The Final Office Action on p. 6 alleged:

[I]t would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

Second, the Final Office Action on p. 7 alleged: "The motivation would have been to assess the value of an intellectual property." The Examiner failed to provide any citations in either *Pakes* or *Hough* for these apparent motivations. Also, these statements fail to supply any motivation because valuing an intellectual property portfolio is possible without using the techniques *Hough* has described. Furthermore, it is not clear what the Examiner means by "in a desired type of environment" nor is it clear that the Examiner has alleged that even to be a motivation because the motivation appears to be "to determine the value of a subject property such as an intellectual property." One does not need the teachings of *Hough* "to determine the value of a subject property such as an intellectual property." So, not only does the alleged motivation fail to come from *Hough* or *Pakes*, these statements by the Examiner simply fail to be motivating.

Furthermore, because *Pakes* and *Hough* are so unrelated because one discusses valuing options relating to intangible property and the other describes valuing real property, it seems that a motivation to combine coming from a reference is even more important. In other words, real property and intangible property are so different that it seems unlikely that combining prior art regarding them would be obvious to a person of skill in the art. For example, to highlight some of

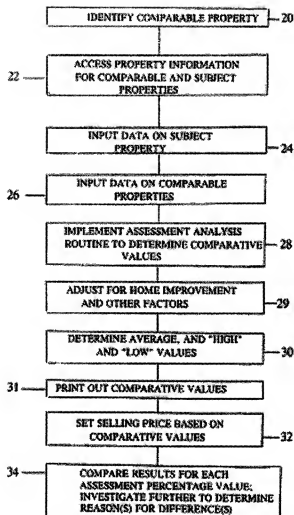
the differences, real property does not expire the way patents or copyrights do because the government grants these intellectual property rights for a limited time. Furthermore, an adjudication of invalidity could extinguish the patent, whereas there is no analog in the area of adjudication regarding real property. Likewise, frequency of citations may indicate value for a patent, whereas that concept is irrelevant for real property.

Therefore, the Examiner has failed to establish a reason to combine prior art about real property and prior art regarding intangible property, and hence has provided no reason to combine *Pakes* and *Hough*. Therefore, the obviousness rejection of claim 28 is improper and should be reversed.

#### **5. Resulting Combination Still Does Not Include All Elements of the Claims**

Even if *Pakes* and *Hough* were combined, the combination of *Pakes* and *Hough* would still fail to describe all the elements in the embodiment in claim 28. As discussed above, *Hough* describes a "system and method for computing a comparative value of real estate" (See *Hough*, Title), and *Pakes* describes valuing an option, the option of whether to pay patent maintenance fees. Thus, at a high level of abstraction, the resulting combination of *Pakes* and *Hough* is merely a system and method for computing a comparative value of an option. This is not the combination that Applicant has claimed.

Even at lower levels of abstraction, the combination fails to describe the features of claim 28. In other words, the computations disclosed in *Hough*, as described in Figs. 2 and 3, with data regarding the value of an option plugged in, still fails to describe the features of claim 28. Specifically, Fig. 2 is depicted below:



For example, Fig. 2, item 20 states "identify comparable property" and col. 4, lines 46-60

further describe this step as:

The first step which is necessary in the first embodiment is to **identify comparable property** (recently sold and currently for sale) in the same tax district and class (and hence same tax rate) as the subject property, shown at step 20. **This may be done through the use of the table** of data stored in the storage bank 17, as will be explained hereinafter, **or by "in-the-field" investigations**. It is preferable, but not necessary, that the comparable properties be in the **same**

general location or neighborhood, and perhaps even the same street, to serve as the best “comparable properties”.

(emphasis added). However, claim 28 recites:

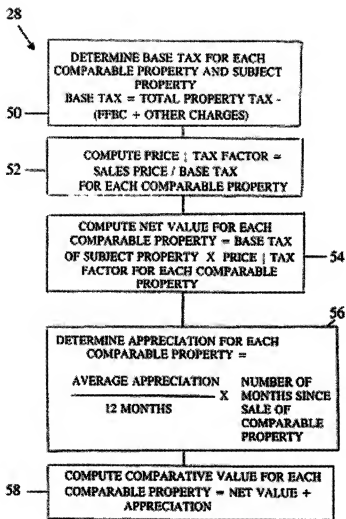
28. A computer assisted process for determining an estimated value of an intellectual property portfolio, the process comprising the steps of:

- (a) analyzing the intellectual property portfolio;
- (b) deriving first information responsive to said analyzing step (a) based upon the intellectual property portfolio;
- (c) retrieving, by a computer, empirical data relating to known intellectual property portfolios; and
- (d) comparing the first information derived in said deriving step (b) to the empirical data retrieved from said retrieving step (c) producing an estimated intellectual property worth indicator indicating the worth of the intellectual property portfolio.

(emphasis added).

Yet, *Hough* teaches selecting the properties that are comparable to the subject property without doing any math, whereas claim 28 does not require such selection. *Hough* teaches using a table, doing “in-the-field” investigations or looking at the neighborhoods to “identify” comparable properties. Therefore, for at least the reason that *Hough* requires an identification step, the combination of *Pakes* and *Hough* fails to describe the features of claim 28.

The statement that the combination of *Pakes* and *Hough* fails to describe the features of claim 28 is also true with respect to the computations disclosed by *Hough* in Fig. 3. Fig. 3 is depicted below.



When one tries to plug in data regarding valuing an option relating to a patent into the computations disclosed by *Hough*, the result is nonsensical. The concept of appreciation is meaningless with respect to options, and moreover, it is not helpful regarding patents. Patents are probably more likely to depreciate because new technologies may arise that replace what was claimed in a patent, rendering a patented technology obsolete. Also, patents expire, and thus, become worthless at the end of the patent term. Furthermore, the concept of base tax is also irrelevant with respect to patents and options. It is not clear how one would plug in information regarding an option into a base tax calculation. Thus, the combination fails to disclose the features of claim 28.

The Final Office Action on p. 3-4 alleged:

the method and system [of *Hough*] perform similarly as the applicant's claimed invention with the **only difference being the type of data processed**. As such the Examiner had stated that since the means and steps found in *Hough* are similar to that of the claimed invention in determining the value of a real estate property. Introducing different types of data for performing the same steps or function would not provide patentable differences, as the result would only apply to the type of associated data.

(emphasis added). The Final Office Action on p. 6-7 alleged:

The only difference between the claimed invention and the teachings of *Hough* is the type of data being claimed. ***It is noted that the type of data does not affect the functioning of the system of Hough since in memory or computer manipulation, data is only data.*** The kind of data does not affect the functioning of the system. Thus, it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

(emphasis added). Applicant disagrees. As was demonstrated above, there are more differences than simply the type of data processed. *Hough* not only values real estate instead of intellectual property, it also requires an identification step, as discussed above. Furthermore, computations such as average appreciation and the ones involving base tax simply do not apply in the case of valuing intellectual property. So, not just the data is different, the computations are also different.

Because the Examiner has failed to establish that the combination discloses all the features of claim 28 at either a high or low level of abstraction, the Examiner has not proven that claim 28 is obvious. Therefore the rejection of claim 28 should be reversed.

#### **D. Rejection of Dependent Claims 29-40**

Since independent claim 28 is allowable for at least the reasons discussed above, dependent claims 29-40 are allowable because each depends from an allowable claim. See *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Also, for at least the reason that



dependent claims 29-40 contain allowable subject matter regardless of whether claim 28 is allowed, the rejection of claims 29-40 should be reversed.

Regarding claim 29, for at least the reason that the combination of *Hough* and *Pakes* does yield predictable results, claim 29 is not obvious. The Office Action on p. 7 noted that "intellectual properties include patents, trademarks, trade secrets and copyrights" and that "substituting one of these types of data into the system of *Hough* would have been obvious to one of ordinary skill in the art at the time of the invention with the motivation noted above and also to widen the scope of *Hough* by estimating the value of a plurality of types of properties." However, to reject a claim based on the substitution rationale, the Office Action must resolve the *Graham* factual inquiries as provided in MPEP 2143. Specifically, the MPEP provides:

Office personnel must articulate the following:

- (1) a finding that the prior art contained a device(method, product, etc.) which differed from the claimed device by the substitution of some components (step, element, etc.) with other components;
- (2) a finding that the substituted components and their functions were known in the art;
- (3) a finding that one of ordinary skill in the art would have substituted one known element for another, and the results of the substitution would have been predictable; and
- (4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain the conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that the substitution of one known element for another yields predictable results to one of ordinary skill in the art. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art.

The Office Action has failed to establish that substituting "patents, trademarks, trade secrets and copyrights" into the system of *Hough* would yield predictable results. *Hough* involves calculations of tax assessments, price/tax factors, phase value etc. for real estate that are irrelevant for determining the value of intellectual property. These calculations would not result in

valuing an intellectual property portfolio, and thus, the substitution of intellectual property in the system of *Hough* would not yield predictable results nor the features of claim 29. Therefore, for at least the reason that the substitution alleged does not yield predictable results, claim 29 is not obvious.

Regarding claim 30, for at least the reason that the Office Action has used hindsight including conclusory statements as the only reason for the rejection, the rejection of claim 30 should be reversed. In its rejection, the Office Action alleged numerous modifications of *Hough* apparently motivated by various reasons for which the Examiner has provided no citation. First, the person of skill in the art would have to have been motivated to value intellectual property instead of real estate. (Office Action, p. 7 (discussing base claim 28). Next, the person of skill in the art would have to have been motivated to look for data in at least one of a patent database, a trademark database, a copyright database, a technical literature database, a legal reporter database, a current events database and an intellectual property status database. (Office Action, p. 8). Finally, the person would have to have been motivated to make a better assessment of the estimated value of an intellectual property portfolio using such data. (Office Action, p. 8). However, the Office Action has failed to cite a reference that would teach or suggest to a person of skill in the art to do any of these numerous modifications of *Hough*. The Office Action has not even cited a disclosure in a reference regarding an intellectual property related database, much less using that database to value intellectual property. Rather, the Office Action has merely used hindsight and conclusory statements to reject claim 30. For at least this reason, the obviousness rejection of claim 30 should be reversed.

Regarding claim 31, the Office Action alleges that because "*Hough* teaches taking into consideration various attributes such as the number of bedrooms, the neighborhood, age of the house, and other features and/or options related to a subject real estate property in determining

its value," it would have been obvious to one of ordinary skill in the art to use attributes or characteristics related to intellectual properties. Furthermore, beyond alleging that a person of skill in the art would have been motivated to modify *Hough* to value an intellectual property portfolio, the Office Action appears to be alleging that this person would have known what attributes of intellectual property indicate value in order to make this rejection. In other words, this person would have known to use the following "first information" including:

patent information derived from the patents in the patent portfolio comprising at least one of the following: number of claims, length of independent claims, number and dates of references cited, number of classes searched, legal status of the patents, number of years until each of the patents expire, group which examined each of the patents, domestic priority, and foreign priority.

However, the Office Action has failed to cite a reference that identifies any of these characteristics as being used to determine the value of an intellectual property portfolio. *Pakes* merely discusses valuing an option as discussed above, and cannot be used to cure the deficiencies of *Hough*. Here again, for at least the reason that the Office Action has used hindsight and conclusory statements to reject a claim, the obviousness rejection of claim 31 should be reversed.

Regarding claim 32, the Office Action stated "as per the limitation of the "frequency with which the patents have been cited as references for other patents", *Hough* discloses considering features of other real estate properties and which other kinds or similar properties were sold in estimating the value of a subject property." (Office Action, p. 9). The Office Action also cited Figures 15-16 and 18-19. The disclosure and figures in *Hough* have nothing to do with the "frequency with which the patents have been cited as references for other patents" because the concept of citation is completely irrelevant in real estate. *Hough* simply does not describe this feature. Also, *Pakes* merely discusses valuing an option as discussed above and does not discuss using frequency of citation as a characteristic, and thus, *Pakes* cannot be used to cure

the deficiencies of *Hough*. Here again, for at least the reason that the Office Action has used hindsight and conclusory statements to reject a claim, the obviousness rejection of claim 32 should be reversed.

Furthermore, Appellant requested that the Examiner provide a prior art reference describing the “frequency with which the patents have been cited as references for other patents” feature in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 32 should be withdrawn.

Regarding claim 33, the Office Action alleges that “Hough teaches determining differences in value by weighing the values of the subject property and comparing such with the values of other properties and/or other recently sold properties.” This is a conclusory statement that lacks support because the Office Action has not cited any portion of *Hough* discussing this feature. The Office Action has merely paraphrased the claim in order to reject it. Thus, for at least the reason that the Office Action has used hindsight and conclusory statements to reject this claim, the obviousness rejection of claim 33 should be reversed.

Furthermore, Appellant requested that the Examiner provide a prior art reference describing using weighing techniques for different variables in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 33 should be withdrawn.

Regarding claim 34, the Office Action on pages 5-7 failed to establish that *Hough* or *Pakes* discusses the features of claim 34. Claim 34 recites:

34. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28,

wherein the intellectual property portfolio includes issued patents, and at least one of trademarks, trade secrets and copyrights, and

wherein the first information are derived by analyzing the issued patents, and the at least one of trademarks and copyrights.

For at least the reason that the Office Action has failed to address all the limitations of claim 34, the claim cannot be found obvious. Specifically, the Office Action has failed to complete at least two of the *Graham* factual inquiries. Those inquiries being "determining the scope and contents of the prior art" and "ascertaining the differences between the claimed invention and the prior art" as discussed above. For example, it has completely ignored the "wherein the intellectual property portfolio includes issued patents, and at least one of trademarks, trade secrets and copyrights" feature. Thus, for at least the reason that the *Graham* factual inquiries have not been completed, the rejection of claim 34 should be reversed.

Regarding claim 35, the Office Action alleges that "Hough teaches the estimated value of the subject properties is derived substantially independent of accounting valuation techniques including cost, market and income approaches." This rejection is even more egregious than that of claim 33 because the Office Action has merely recited the language of claim 20 in order to reject claim 35. Furthermore, it has failed to cite any section of *Hough* that teaches the features of claim 35. Thus, for at least the reason that the Office Action has used hindsight and conclusory statements to reject this claim, the obviousness rejection of claim 35 should be reversed.

Regarding claim 36, the Office Action on p. 9 alleges that "Hough teaches the first information is statistically similar to the second information of one of the representative real estate properties" in col. 4, line 5 to col. 7, line 60. The Office Action also asserted that a curve fitting technique or a standard deviation technique is well known in the art. Furthermore, the Office Action also alleged that it would have been "obvious to one of ordinary skill in the art to use in the system of Hough in order to determine a closest match between one property and the property being evaluated." However, the language of claim 36 recites:

36. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the first information of the second intellectual property portfolio **is determined to be statistically similar** to the second information of one of the representative intellectual property portfolios **utilizing at least one of a curve fitting technique and a standard deviation technique.**

(emphasis added). Yet, *Hough* teaches selecting the properties that are comparable to the subject property before doing any math, whereas in claim 23 statistical similarity is determined by "utilizing at least one of a curve fitting technique and a standard deviation technique." Specifically, *Hough* states in col. 1, lines 41-46:

Briefly, the present invention relates to a system and method for **determining comparative values of comparable properties** based on combining and comparing assessment data and sales data of the comparable properties to ultimately determine a value for a particular property, called the subject property.

(emphasis added). In addition, *Hough*, col. 4, lines 45-57 provide:

Turning to FIG. 2, a general outline of the steps according to the present invention are shown. The first step which is necessary in the first embodiment is **to identify comparable property (recently sold and currently for sale) in the same tax district and class** (and hence same tax rate) as the subject property, shown at step 20. This may be done through the use of the table of data stored in the storage bank 17, as will be explained hereinafter, or by "in-the-field" investigations. It is preferable, but not necessary, that the comparable properties be in the **same general location or neighborhood**, and perhaps even the same street, to serve as the best "comparable properties".

(emphasis added). The Office Action appears to be confusing *Hough's* "comparability" with the "similarity" of claim 36. In other words, "utilizing at least one of a curve fitting technique and a standard deviation technique" is pointless in *Hough* for determining whether properties are comparable. *Hough* discusses considering geography, tax district and class in determining comparability, and this type of information is not quantitative and thus not useful for determining statistical similarity. For example, *Hough* does not disclose using proximity, which is a measurable quantity, but rather discussed information such as same general location, tax district, and class which is not useful in curve fitting techniques or a standard deviation techniques. Thus,

*Hough* does not teach the features as alleged in the Office Action, and the Examiner's assertions of what is well known in the art fail to remedy the shortcomings of *Hough*. Hence the rejection of claim 36 as obvious should be reversed.

Furthermore, Appellant disagreed with the Examiner that curve fitting techniques or standard deviation techniques are well known with respect to intellectual property valuation. Appellant requested that the Examiner provide a prior art reference describing this feature in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 36 should be withdrawn.

Regarding claim 37, the Office Action on page 10 alleged that Figs. 12 and 15-18 of *Hough* describe "the objectively determinable values of the real estate properties include objectively determinable monetary values." However, the language of claim 37 recites:

37. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28,

wherein the first information includes first valuation indicators,

wherein the first valuation indicators are assigned an importance factor based upon predetermined criteria, and

wherein the first valuation indicators are compared to the empirical data and the estimated intellectual property worth indicator of the intellectual property portfolio is determined responsive to the importance factor of the first valuation indicators.

Clearly, in the context of claim 37, the first information, the first valuation indicators, the empirical data, the estimated intellectual property worth indicator, and the importance factor based on predetermined criteria all relate to intellectual property as indicated by the claim language and not real estate. Thus, "objectively determinable values of the real estate properties" are not relevant to and cannot describe claim 37.

Furthermore, for at least the reason that the Office Action has failed to address all the limitations of claim 37, the claim cannot be found obvious. Specifically, the Office Action has failed to complete at least two of the *Graham* factual inquiries. Those inquiries being "determining the scope and contents of the prior art" and "ascertaining the differences between the claimed invention and the prior art" as discussed above. For example, it has completely ignored the "wherein the first valuation indicators are assigned an importance factor based upon predetermined criteria" feature. Thus, for at least the reason that the *Graham* factual inquiries have not been completed, the rejection of claim 37 should be reversed.

Regarding claim 38, the Office Action cited Figs. 12 and 15-18 of *Hough*. Claim 38 recites:

38. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the first information of the intellectual property portfolio includes an objectively determinable monetary value.

In the context of claim 38, the "first information of the intellectual property portfolio" is unrelated to "objectively determinable values of the real estate properties" because *Hough* describes valuing real estate and not intellectual property. Furthermore, the Office Action has failed to identify a passage in *Pakes* that discusses "first information of the intellectual property portfolio." Since the Office Action has failed to identify a teaching in a reference that describes the features of claim 38, the rejection of claim 38 should be reversed.

Regarding claim 39, the Office Action cited *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49. However, the language of claim 39 recites:

39. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 38, wherein the objectively determinable monetary value of the intellectual property portfolio is determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the intellectual property portfolio.



This rejection is inconsistent with the rejection of claim 38. The rejection cited Figs. 12 and 15-18 as disclosing "wherein the first information of the intellectual property portfolio includes an objectively determinable monetary values." However, with respect to claim 39, because claim 39 relates to intellectual property, none of the items in Figs. 12 and 15-18 describe:

wherein the objectively determinable monetary value of the intellectual property portfolio is determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the representative intellectual property portfolios.

Furthermore, *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49 cannot remedy the deficiencies of the cited figures because those sections also describe real estate. Nor does *Pakes* cure the shortcomings of *Hough*. Therefore, because the Office Action has failed to identify a teaching in a reference that describes the features of claim 39, the rejection of claim 39 should be reversed.

Regarding claim 40, the Office Action cited *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49. However, the language of claim 40 recites:

40. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the first information includes at least one of prior adjudication values, prior license values, and prior purchase values.

This rejection is inconsistent with the rejection of claim 38, the rejection cited Figs. 12 and 15-18 as disclosing "wherein the first information of the **intellectual property portfolio** includes an objectively determinable monetary value." (emphasis added). However, with respect to claim 40, because claim 40 relates to intellectual property, none of the items in Figs. 12 and 15-18 describe "wherein the first information includes at least one of prior adjudication values, prior license values, and prior purchase values."

Furthermore, *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49 cannot remedy the deficiencies of those figures because those sections also describe real estate. Nor does

*Pakes* cure the shortcomings of *Hough*. Therefore, because the Office Action has failed to identify a teaching in a reference that describes the features of claim 40, the rejection of claim 40 should be withdrawn.

Accordingly, for at least the reason that dependent claims 29-40 contain allowable subject matter as discussed above regardless of whether claim 28 is allowable, the rejection of claims 29-40 should be reversed.

#### **E. Rejection of Independent Claim 41**

The Final Office Action rejected independent claim 41 as allegedly obvious over the combination of *Hough* considered with *Pakes*.

The framework of the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), which was reaffirmed in *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007). Obviousness is a question of law based on underlying factual inquiries, and the factual inquiries enunciated by the Court are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art;  
and
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. For at least the reasons set forth herein, Applicant respectfully disagrees with the rejection and requests that the rejection be reversed.

## 1. Discussion of the References

*Hough* describes a "system and method for computing a comparative value of **real estate**." (See Title) (emphasis added). According to the *Hough* abstract, this method can be accomplished in the following manner:

A price/tax factor is computed for each comparable property by dividing the sale (or sold) price of the comparable property by its base tax. The price/tax factor for each comparable property is then multiplied by the base tax of the subject property to generate a net comparative value for each comparable property. To take into account appreciation for recently sold properties, an average appreciation is obtained for the area in which the subject and comparable properties are located. The average appreciation is pro rated to determine the comparative value for each comparable property. On the basis of the comparative values and other pertinent information, the value of the subject property may be set by a real estate agent, bank, appraiser, etc.

*Pakes* describes an academic methodology for valuing the option of whether to hold a patent based on economics. Specifically, *Pakes* states the following on p. 755:

This paper presents and then estimates a model, which allows us to recover the **distribution of returns** from holding patents at each age over the lifespan of patents **from information on patent renewals**.

Thus, *Pakes* relates to using patent renewals to determine an estimate of distribution of returns from holding a patent. *Pakes* does not present information regarding estimating the value of a patent itself.

## 2. No Reasonable Expectation of Success

Application respectfully submits that the Examiner has failed to show any reasonable expectation of success for the combination of *Hough* and *Pakes*. A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods **with no change in their respective functions**, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v.*

*Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 435 (1976) (emphasis added). Also, if the **proposed modification or combination of the prior art would change the principle operation of the prior art invention** being modified, then the teachings of the references are **not sufficient** to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (emphasis added).

The Examiner alleged:

[O]ne of ordinary skill in the art desiring to objectively determine the **value of intellectual property portfolio** would have **turned to the teachings of Pakes in order to provide the proper variables** related to a patent or patent applications for incorporating such in the method and system of *Hough*.

(Final Office Action, p. 4) (emphasis added). However, *Pakes* does not teach the proper variables, much less those for "producing an intellectual property worth indicator."

Specifically, the Examiner contends that because *Pakes* is entitled "Patents as options: Some estimates of the value of holding European patent stocks," it suggests estimating the value of patents. (See page 2 of the Final Office Action). However, the title of *Pakes* describes the **value of holding** the patent. In other words, the title describes valuing **an option, not intellectual property**. The option being whether to hold a patent by continuing to pay maintenance fees. Estimating the "value of an intellectual property portfolio" is not the same thing as estimating the value of an option.

Further, the Examiner states that in determining whether maintenance fees should be paid, "*Pakes* determines the current value of the patent and whether the patent would provide future returns." (See page 4 of the Final Office Action). Appellant respectfully disagrees. *Pakes* only teaches the latter because it calculates the returns based on the investment in the renewal fee. *Pakes* does not teach using the value of the patent itself in the returns calculation. Pages 764 and 776, which were cited by the Examiner, illustrate this point. *Pakes*, p. 764 discloses the

Markov process which "generates the returns from holding a patent." Similarly, p. 776 merely discloses a distribution of returns from holding the patents and not the actual value of the patents. The Examiner has not shown how these pages disclose valuing intellectual property itself nor has he indicated which variable in the Markov process formula allegedly represents the value of the patents.

Since *Pakes* teaches valuing an option instead of determining an estimated value of an intellectual property portfolio, it does not say what the Examiner alleges it discloses. Thus, a person of ordinary skill in the art would be forced to change the function of the method disclosed in *Pakes* to calculate the value of property instead of the returns from holding it. Because this person of ordinary skill would have had to change *Pakes*, under the standard from *KSR* cited above, there can be no reasonable expectation of success for the combination of *Hough* and *Pakes*. Moreover, changing *Pakes* to value patents instead of options would change the principle operation of *Pakes* which is calculating the returns for paying maintenance fees.

In addition, though the Examiner alleged that a person of ordinary skill in the art would have turned to the teachings of *Pakes* in order to provide the proper variables, the Examiner also contends that the type of data does not provide patentable differences when viewing the system of *Hough*. Yet, the type of data is different in important ways. For example, the number of references cited or number of classes searched can be gathered for a patent and a high value assigned to the indicator when the patent lists many classes or many cited references. There is simply no analog for this type of data for real property. Even a neighborhood is not similar to a class because class because a house generally only lies in one neighborhood. The type of data does provide a patentable difference over *Hough*.

Furthermore, even if the only difference was the type of data, this application is not completely shown or suggested by the prior art because *Pakes* does not disclose the data used in

valuing intellectual property. *Pakes* discloses valuing options. Therefore, in any case, the claims patentably distinguish over *Hough* and *Pakes*.

Moreover, there is also no reasonable expectation of success because *Pakes* is flawed. *Pakes* does not consider that money used in renewing patents may alternatively be used for other purposes that could obtain greater return. In other words, *Pakes* ignores the subjective opportunity cost in his methodology. It is highly possible that valuable patents were never renewed because the owner had a better use of his money. Though using the money to renew a patent might have had a significant return, the owner may have had an even more profitable opportunity. Thus, it is highly possible that the *Pakes* methodology places a premium or is skewed in favor of patent owners that do not effectively use their limited resources, except for paying patent renewals. More specifically, patents that have not been renewed are worth nothing. Thus, overall, *Pakes* cannot be used at all to estimate the value of the intellectual property itself.

*Pakes* also assumes that payment of the renewal fees must be based on a direct correlation to economic return that fully supports the renewal fee payments. However, *Pakes* does not even consider that there may be a strong percentage of renewal fees that are paid because the incremental cost to the owner is not significant with respect to the cost already incurred in obtaining the patent. In addition, *Pakes* does not consider that renewal fees may be paid even if the patents represent a losing proposition because the cost of the renewal might not be considered significant to the owner. *Pakes* further does not consider that the patents themselves may not have direct revenue uses, but might be related to existing income streams that justify the renewal fees, even though the patents themselves do not support the renewal fees.

Thus, because *Pakes* does not disclose valuing intellectual property and also is flawed, there could not be a reasonable expectation of success. Accordingly, the rejection of claim 41 as obvious in view of the combination of *Hough* and *Pakes* should be reversed.

### 3. The Examiner has Failed to Ascertain the Level of Ordinary Skill in the Art

"The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991). The examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in the remote arts, or to geniuses in the art at hand. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984). To be objective, the examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made.

On p. 6, the Final Office Action alleges that "it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of [...] intellectual property." This statement assumes that this person of ordinary skill in the art would have expertise both in valuing real estate and in valuing intellectual property. Appellant asserts that such a person would be a person of **extraordinary** skill and is contrary to the standard. The data is not interchangeable because specialized skills are needed to choose the appropriate data to evaluate. In other words, a real estate agent would not likely know what data to use to value a patent and would not learn them by reading *Pakes*. Likewise, a patent agent would probably be befuddled by the meanings of "phase value" and "assessment percentage" and not be aware of analogous characteristics for a patent.

Accordingly, because the Examiner has failed to ascertain the level of ordinary skill in the art, he has not completed the *Graham* factual inquiries. Therefore, obviousness rejection of claim 41 was improper and should be reversed.

#### **4. No Reason to Combine Real Property Prior Art with Intangible Property Prior Art**

The Examiner has failed to provide a reason to combine prior art about real property with prior art regarding intangible property. The Examiner merely made the following conclusory statements regarding the alleged motivation to combine. First, The Final Office Action on p. 6 alleged:

[I]t would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

Second, the Final Office Action on p. 7 alleged: "The motivation would have been to assess the value of an intellectual property." The Examiner failed to provide any citations in either *Pakes* or *Hough* for these apparent motivations. Also, these statements fail to supply any motivation because valuing an intellectual property portfolio is possible without using the techniques *Hough* has described. Furthermore, it is not clear what the Examiner means by "in a desired type of environment" nor is it clear that the Examiner has alleged that even to be a motivation because the motivation appears to be "to determine the value of a subject property such as an intellectual property." One does not need the teachings of *Hough* "to determine the value of a subject property such as an intellectual property." So, not only does the alleged motivation fail to come from *Hough* or *Pakes*, these statements by the Examiner simply fail to be motivating.

Furthermore, because *Pakes* and *Hough* are so unrelated because one discusses valuing options relating to intangible property and the other describes valuing real property, it seems that



a motivation to combine coming from a reference is even more important. In other words, real property and intangible property are so different that it seems unlikely that combining prior art regarding them would be obvious to a person of skill in the art. For example, to highlight some of the differences, real property does not expire the way patents or copyrights do because the government grants these intellectual property rights for a limited time. Furthermore, an adjudication of invalidity could extinguish the patent, whereas there is no analog in the area of adjudication regarding real property. Likewise, frequency of citations may indicate value for a patent, whereas that concept is irrelevant for real property.

Therefore, the Examiner has failed to establish a reason to combine prior art about real property and prior art regarding intangible property, and hence has provided no reason to combine *Pakes* and *Hough*. Therefore, the obviousness rejection of claim 41 is improper and should be reversed.

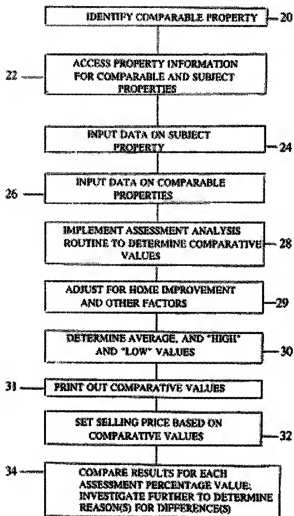
#### **5. Resulting Combination Still Does Not Include All Elements of the Claims**

Even if *Pakes* and *Hough* were combined, the combination of *Pakes* and *Hough* would still fail to describe all the elements in the embodiment in claim 41. As discussed above, *Hough* describes a "system and method for computing a comparative value of real estate" (See *Hough*, Title), and *Pakes* describes valuing an option, the option of whether to pay patent maintenance fees. Thus, at a high level of abstraction, the resulting combination of *Pakes* and *Hough* is merely a system and method for computing a comparative value of an option. This is not the combination that Applicant has claimed.

Even at lower levels of abstraction, the combination fails to describe the features of claim

41. In other words, the computations disclosed in *Hough*, as described in Figs. 2 and 3, with data regarding the value of an option plugged in, still fails to describe the features of claim 41.

Specifically, Fig. 2 is depicted below:



For example, Fig. 2, item 20 states "identify comparable property" and col. 4, lines 46-60 further describe this step as:

The first step which is necessary in the first embodiment is to ***identify comparable property*** (recently sold and currently for sale) in the same tax district and class (and hence same tax rate) as the subject property, shown at step 20.

*This may be done through the use of the table of data stored in the storage bank 17, as will be explained hereinafter, or by "in-the-field" investigations. It is preferable, but not necessary, that the comparable properties be in the same general location or neighborhood, and perhaps even the same street, to serve as the best "comparable properties".*

(emphasis added). However, claim 41 recites:

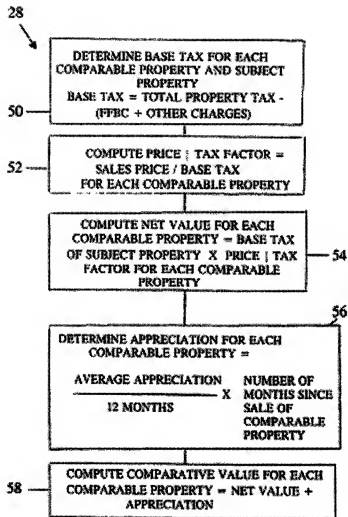
41. A process for determining an estimated value of an intellectual property portfolio, the process comprising the steps of:

- (a) analyzing the intellectual property portfolio, and equivalents thereof;
- (b) deriving first information responsive to said analyzing step (a) based upon the intellectual property portfolio, and equivalents thereof;
- (c) retrieving empirical data relating to known intellectual property portfolios, and equivalents thereof; and
- (d) comparing the first information derived in said deriving step (b) to the empirical data retrieved from said retrieving step (c) producing an intellectual property worth indicator indicating the worth of the intellectual property portfolio, and equivalents thereof,

wherein the intellectual property includes information obtained from at least one of a patent, a trademark, technical literature, a copyright, legal reporter information, current events and an intellectual property status information.

Yet, *Hough* teaches selecting the properties that are comparable to the subject property without doing any math, whereas claim 41 does not require such selection. *Hough* teaches using a table, doing "in-the-field" investigations or looking at the neighborhoods to "identify" comparable properties. Therefore, for at least the reason that *Hough* requires an identification step, the combination of *Pakes* and *Hough* fails to describe the features of claim 41.

The statement that the combination of *Pakes* and *Hough* fails to describe the features of claim 41 is also true with respect to the computations disclosed by *Hough* in Fig. 3. Fig. 3 is depicted below.



When one tries to plug in data regarding valuing an option relating to a patent into the computations disclosed by *Hough*, the result is nonsensical. The concept of appreciation is meaningless with respect to options, and moreover, it is not helpful regarding patents. Patents are probably more likely to depreciate because new technologies may arise that replace what was claimed in a patent, rendering a patented technology obsolete. Also, patents expire, and thus,

become worthless at the end of the patent term. Furthermore, the concept of base tax is also irrelevant with respect to patents and options. It is not clear how one would plug in information regarding an option into a base tax calculation. Thus, the combination fails to disclose the features of claim 41.

The Final Office Action on p. 3-4 alleged:

the method and system [of *Hough*] perform similarly as the applicant's claimed invention with the **only difference being the type of data processed**. As such the Examiner had stated that since the means and steps found in *Hough* are similar to that of the claimed invention in determining the value of a real estate property. Introducing different types of data for performing the same steps or function would not provide patentable differences, as the result would only apply to the type of associated data.

(emphasis added). The Final Office Action on p. 6-7 alleged:

The only difference between the claimed invention and the teachings of *Hough* is the type of data being claimed. ***It is noted that the type of data does not affect the functioning of the system of Hough since in memory or computer manipulation, data is only data.*** The kind of data does not affect the functioning of the system. Thus, it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

(emphasis added). Applicant disagrees. As was demonstrated above, there are more differences than simply the type of data processed. *Hough* not only values real estate instead of intellectual property, it also requires an identification step, as discussed above. Furthermore, computations such as average appreciation and the ones involving base tax simply do not apply in the case of valuing intellectual property. So, not just the data is different, the computations are also different.

Because the Examiner has failed to establish that the combination discloses all the features of claim 41 at either a high or low level of abstraction, the Examiner has not proven that claim 41 is obvious. Therefore the rejection of claim 41 should be reversed.

## F. Rejection of Independent Claim 42

The Final Office Action rejected independent claim 42 as allegedly obvious over the combination of *Hough* considered with *Pakes*. Applicant respectfully disagrees. The framework of the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), which was reaffirmed in *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007).

Obviousness is a question of law based on underlying factual inquiries, and the factual inquiries enunciated by the Court are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art;  
and
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. For at least the reasons set forth herein, Applicant respectfully disagrees with the rejection and requests that the rejection be reversed.

### 1. Discussion of the References

*Hough* describes a "system and method for computing a comparative value of **real estate**." (*See Title*) (emphasis added). According the *Hough* abstract, this method can be accomplished in the following manner:

A price/tax factor is computed for each comparable property by dividing the sale (or sold) price of the comparable property by its base tax. The price/tax factor for each comparable property is then multiplied by the base tax of the subject property to generate a net comparative value for each comparable property. To take into account appreciation for recently sold properties, an average appreciation is obtained for the area in which the subject and comparable properties are located. The average appreciation is pro rated to determine the comparative value for each comparable property. On the basis of the comparative values and other pertinent

information, the value of the subject property may be set by a real estate agent, bank, appraiser, etc.

*Pakes* describes an academic methodology for valuing the option of whether to hold a patent based on economics. Specifically, *Pakes* states the following on p. 755:

This paper presents and then estimates a model, which allows us to recover the **distribution of returns** from holding patents at each age over the lifespan of patents **from information on patent renewals**.

Thus, *Pakes* relates to using patent renewals to determine an estimate of distribution of returns from holding a patent. *Pakes* does not present information regarding estimating the value of a patent itself.

## 2. No Reasonable Expectation of Success

Application respectfully submits that the Examiner has failed to show any reasonable expectation of success for the combination of *Hough* and *Pakes*. A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods **with no change in their respective functions**, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 435 (1976) (emphasis added). Also, if the **proposed modification or combination of the prior art would change the principle operation of the prior art invention** being modified, then the teachings of the references are **not sufficient** to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (emphasis added).

The Examiner alleged:

[O]ne of ordinary skill in the art desiring to objectively determine the **value of intellectual property portfolio** would have **turned to the teachings of Pakes in order to provide the proper variables** related to a patent or patent applications for incorporating such in the method and system of *Hough*.

(Final Office Action, p. 4) (emphasis added). However, *Pakes* does not teach the proper variables, much less “quality data relating to known intellectual property portfolios,” or determining “an intellectual property factor indicating the at least one of the financial quality and the financial quality of the intellectual property portfolio.”

Specifically, the Examiner contends that because *Pakes* is entitled “Patents as options: Some estimates of the value of holding European patent stocks,” it suggests estimating the value of patents. (See page 2 of the Final Office Action). However, the title of *Pakes* describes the **value of holding** the patent. In other words, the title describes valuing **an option, not intellectual property**. The option being whether to hold a patent by continuing to pay maintenance fees. “Determining at least one of a financial quality and financial quantity of the intellectual property portfolio” is not the same thing as estimating the value of an option. Rather, *Pakes* determines whether maintenance fees should be paid.

Further, the Examiner states that in determining whether maintenance fees should be paid, “*Pakes* determines the current value of the patent and whether the patent would provide future returns.” (See page 4 of the Final Office Action). Appellant respectfully disagrees. *Pakes* only teaches the latter because it calculates the returns based on the investment in the renewal fee. *Pakes* does not teach using the value of the patent itself in the returns calculation. Pages 764 and 776, which were cited by the Examiner, illustrate this point. *Pakes*, p. 764 discloses the Markov process which “generates the returns from holding a patent.” Similarly, p. 776 merely discloses a distribution of returns from holding the patents and not the actual value of the patents. The Examiner has not shown how these pages disclose determining at least one of a financial



quality and financial quantity nor has he indicated which variable in the Markov process formula allegedly represents the value of the patents.

Since *Pakes* teaches valuing an option instead of "quality data relating to known intellectual property portfolios," or determining "an intellectual property factor indicating the at least one of the financial quality and the financial quantity of the intellectual property portfolio," it does not describe what the Examiner alleges it discloses. Thus, a person of ordinary skill in the art would be forced to change the function of the method disclosed in *Pakes* to calculate the value of property instead of the returns from holding it. Because this person of ordinary skill would have had to change *Pakes*, under the standard from *KSR* cited above, there can be no reasonable expectation of success for the combination of *Hough* and *Pakes*. Moreover, changing *Pakes* to value patents instead of options would change the principle operation of *Pakes* which is calculating the returns for paying maintenance fees.

In addition, though the Examiner alleged that a person of ordinary skill in the art would have turned to the teachings of *Pakes* in order to provide the proper variables, the Examiner also contends that the type of data does not provide patentable differences when viewing the system of *Hough*. Yet, the type of data is different in important ways. For example, the number of references cited or number of classes searched can be gathered for a patent and a high value assigned to the indicator when the patent lists many classes or many cited references. There is simply no analog for this type of data for real property. Even a neighborhood is not similar to a class because a house generally only lies in one neighborhood. The type of data does provide a patentable difference over *Hough*.

Furthermore, even if the only difference was the type of data, this application is not completely shown or suggested by the prior art because *Pakes* does not disclose the data for determining at least one of a financial quality and financial quantity and financial quantity. *Pakes*

discloses valuing options. Therefore, in any case, claim 42 patentably distinguishes over *Hough* and *Pakes*.

Moreover, there is also no reasonable expectation of success because *Pakes* is flawed. *Pakes* does not consider that money used in renewing patents may alternatively be used for other purposes that could obtain greater return. In other words, *Pakes* ignores the subjective opportunity cost in his methodology. It is highly possible that valuable patents were never renewed because the owner had a better use of his money. Though using the money to renew a patent might have had a significant return, the owner may have had an even more profitable opportunity. Thus, it is highly possible that the *Pakes* methodology places a premium or is skewed in favor of patent owners that do not effectively use their limited resources, except for paying patent renewals. More specifically, patents that have not been renewed are worth nothing. Thus, overall, *Pakes* cannot be used at all to estimate the value of the intellectual property itself.

*Pakes* also assumes that payment of the renewal fees must be based on a direct correlation to economic return that fully supports the renewal fee payments. However, *Pakes* does not even consider that there may be a strong percentage of renewal fees that are paid because the incremental cost to the owner is not significant with respect to the cost already incurred in obtaining the patent. In addition, *Pakes* does not consider that renewal fees may be paid even if the patents represent a losing proposition because the cost of the renewal might not be considered significant to the owner. *Pakes* further does not consider that the patents themselves may not have direct revenue uses, but might be related to existing income streams that justify the renewal fees, even though the patents themselves do not support the renewal fees.

Thus, because *Pakes* does not disclose determining at least one of a financial quality and financial quantity and also is flawed, there could not be a reasonable expectation of success.

Accordingly, the rejection of claim 42 as obvious in view of the combination of *Hough* and *Pakes* should be reversed.

### 3. The Examiner has Failed to Ascertain the Level of Ordinary Skill in the Art

"The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991). The examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in the remote arts, or to geniuses in the art at hand. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984). To be objective, the examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made.

On p. 6, the Final Office Action alleges that "it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of [...] intellectual property." This statement assumes that this person of ordinary skill in the art would have expertise both in valuing real estate and in valuing intellectual property. Appellant asserts that such a person would be a person of **extraordinary** skill and is contrary to the standard. The data is not interchangeable because specialized skills are needed to choose the appropriate data to evaluate. In other words, a real estate agent would not likely know what data to use to value a patent and would not learn them by reading *Pakes*. Likewise, a patent agent would probably be befuddled by the meanings of "phase value" and "assessment percentage" and not be aware of analogous characteristics for a patent.

Accordingly, because the Examiner has failed to ascertain the level of ordinary skill in the art, he has not completed the *Graham* factual inquiries. Therefore, obviousness rejection of claim 42 was improper and should be reversed.

#### **4. No Reason to Combine Real Property Prior Art with Intangible Property Prior Art**

The Examiner has failed to provide a reason to combine prior art about real property with prior art regarding intangible property. The Examiner merely made the following conclusory statements regarding the alleged motivation to combine. First, The Final Office Action on p. 6 alleged:

[I]t would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

Second, the Final Office Action on p. 7 alleged: "The motivation would have been to assess the value of an intellectual property." The Examiner failed to provide any citations in either *Pakes* or *Hough* for these apparent motivations. Also, these statements fail to supply any motivation because valuing an intellectual property portfolio is possible without using the techniques *Hough* has described. Furthermore, it is not clear what the Examiner means by "in a desired type of environment" nor is it clear that the Examiner has alleged that even to be a motivation because the motivation appears to be "to determine the value of a subject property such as an intellectual property." One does not need the teachings of *Hough* "to determine the value of a subject property such as an intellectual property." So, not only does the alleged motivation fail to come from *Hough* or *Pakes*, these statements by the Examiner simply fail to be motivating.

Furthermore, because *Pakes* and *Hough* are so unrelated because one discusses valuing options relating to intangible property and the other describes valuing real property, it seems that

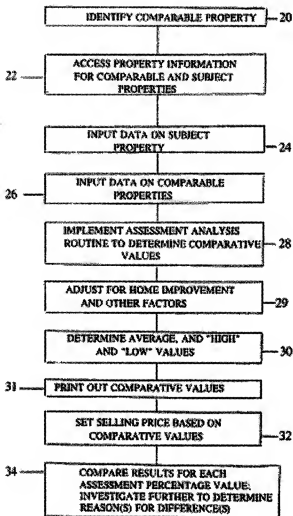
a motivation to combine coming from a reference is even more important. In other words, real property and intangible property are so different that it seems unlikely that combining prior art regarding them would be obvious to a person of skill in the art. For example, to highlight some of the differences, real property does not expire the way patents or copyrights do because the government grants these intellectual property rights for a limited time. Furthermore, an adjudication of invalidity could extinguish the patent, whereas there is no analog in the area of adjudication regarding real property. Likewise, frequency of citations may indicate value for a patent, whereas that concept is irrelevant for real property.

Therefore, the Examiner has failed to establish a reason to combine prior art about real property and prior art regarding intangible property, and hence has provided no reason to combine *Pakes* and *Hough*. Therefore, the obviousness rejection of claim 42 is improper and should be reversed.

#### **5. Resulting Combination Still Does Not Include All Elements of the Claims**

Even if *Pakes* and *Hough* were combined, the combination of *Pakes* and *Hough* would still fail to describe all the elements in the embodiment in claim 42. As discussed above, *Hough* describes a "system and method for computing a comparative value of real estate" (See *Hough*, Title), and *Pakes* describes valuing an option, the option of whether to pay patent maintenance fees. Thus, at a high level of abstraction, the resulting combination of *Pakes* and *Hough* is merely a system and method for computing a comparative value of an option. This is not the combination that Applicant has claimed.

Even at lower levels of abstraction, the combination fails to describe the features of claim 42. In other words, the computations disclosed in *Hough*, as described in Figs. 2 and 3, with data regarding the value of an option plugged in, still fails to describe the features of claim 42. Specifically, Fig. 2 is depicted below:



For example, Fig. 2, item 20 states "identify comparable property" and col. 4, lines 46-60 further describe this step as:

The first step which is necessary in the first embodiment is to ***identify comparable property*** (recently sold and currently for sale) in the same tax district and class (and hence same tax rate) as the subject property, shown at step 20.

*This may be done through the use of the table of data stored in the storage bank 17, as will be explained hereinafter, or by "in-the-field" investigations. It is preferable, but not necessary, that the comparable properties be in the same general location or neighborhood, and perhaps even the same street, to serve as the best "comparable properties".*

(emphasis added). However, claim 42 recites:

42. A computer assisted process for determining at least one of a financial quality and financial quantity of an intellectual property portfolio, the process comprising the steps of:

(a) analyzing the intellectual property portfolio stored in an intellectual property database;

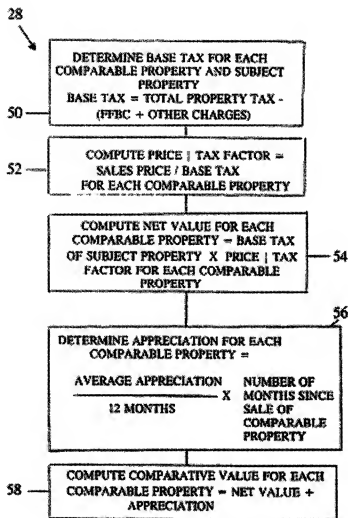
(b) deriving information responsive to said analyzing step (a) based upon the intellectual property portfolio;

(c) retrieving, by a computer, quality data relating to known intellectual property portfolios; and

(d) comparing the information derived in said deriving step (b) to the quality data retrieved from said retrieving step (c) to determine an intellectual property factor indicating the at least one of the financial quality and the financial quantity of the intellectual property portfolio.

Yet, *Hough* teaches selecting the properties that are comparable to the subject property without doing any math, whereas claim 41 does not require such selection. *Hough* teaches using a table, doing "in-the-field" investigations or looking at the neighborhoods to "identify" comparable properties. Therefore, for at least the reason that *Hough* requires an identification step, the combination of *Pakes* and *Hough* fails to describe the features of claim 42.

The statement that the combination of *Pakes* and *Hough* fails to describe the features of claim 42 is also true with respect to the computations disclosed by *Hough* in Fig. 3. Fig. 3 is depicted below.



When one tries to plug in data regarding valuing an option relating to a patent into the computations disclosed by *Hough*, the result is nonsensical. The concept of appreciation is meaningless with respect to options, and moreover, it is not helpful regarding patents. Patents are probably more likely to depreciate because new technologies may arise that replace what was claimed in a patent, rendering a patented technology obsolete. Also, patents expire, and thus,



become worthless at the end of the patent term. Furthermore, the concept of base tax is also irrelevant with respect to patents and options. It is not clear how one would plug in information regarding an option into a base tax calculation. Thus, the combination fails to disclose the features of claim 42.

The Final Office Action on p. 3-4 alleged:

the method and system [of *Hough*] perform similarly as the applicant's claimed invention with the **only difference being the type of data processed**. As such the Examiner had stated that since the means and steps found in *Hough* are similar to that of the claimed invention in determining the value of a real estate property. Introducing different types of data for performing the same steps or function would not provide patentable differences, as the result would only apply to the type of associated data.

(emphasis added). The Final Office Action on p. 6-7 alleged:

The only difference between the claimed invention and the teachings of *Hough* is the type of data being claimed. ***It is noted that the type of data does not affect the functioning of the system of Hough since in memory or computer manipulation, data is only data.*** The kind of data does not affect the functioning of the system. Thus, it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

(emphasis added). Applicant disagrees. As was demonstrated above, there are more differences than simply the type of data processed. *Hough* not only values real estate instead of intellectual property, it also requires an identification step, as discussed above. Furthermore, computations such as average appreciation and the ones involving base tax simply do not apply in the case of valuing intellectual property. So, not just the data is different, the computations are also different.

Because the Examiner has failed to establish that the combination discloses all the features of claim 42 at either a high or low level of abstraction, the Examiner has not proven that claim 42 is obvious. Therefore the rejection of claim 42 should be reversed.

### G. Rejection of Dependent Claims 43-54

Since independent claim 42 is allowable for at least the reasons discussed above, dependent claims 43-54 are allowable because each depends from an allowable claim. See *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Also, for at least the reason that dependent claims 43-54 contain allowable subject matter regardless of whether claim 42 is allowed, the rejection of claims 43-54 should be reversed.

Regarding claim 43, for at least the reason that the combination of *Hough* and *Pakes* does yield predictable results, claim 43 is not obvious. The Office Action on p. 7 noted that "intellectual properties include patents, trademarks, trade secrets and copyrights" and that "substituting one of these types of data into the system of *Hough* would have been obvious to one of ordinary skill in the art at the time of the invention with the motivation noted above and also to widen the scope of *Hough* by estimating the value of a plurality of types of properties." However, to reject a claim based on the substitution rationale, the Office Action must resolve the *Graham* factual inquiries as provided in MPEP 2143. Specifically, the MPEP provides:

Office personnel must articulate the following:

- (5) a finding that the prior art contained a device(method, product, etc.) which differed from the claimed device by the substitution of some components (step, element, etc.) with other components;
- (6) a finding that the substituted components and their functions were known in the art;
- (7) a finding that one of ordinary skill in the art would have substituted one known element for another, and the results of the substitution would have been predictable; and
- (8) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain the conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that the substitution of one known element for another yields predictable results to one of ordinary skill in the art. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art.

The Office Action has failed to establish that substituting "patents, trademarks, trade secrets and copyrights" into the system of *Hough* would yield predictable results. *Hough* involves calculations of tax assessments, price/tax factors, phase value etc. for real estate that are irrelevant for determining the value of intellectual property. These calculations would not result in valuing an intellectual property portfolio, and thus, the substitution of intellectual property in the system of *Hough* would not yield predictable results nor the features of claim 43. Therefore, for at least the reason that the substitution alleged does not yield predictable results, claim 43 is not obvious.

Regarding claim 44, for at least the reason that the Office Action has used hindsight including conclusory statements as the only reason for the rejection, the rejection of claim 30 should be reversed. In its rejection, the Office Action alleged numerous modifications of *Hough* apparently motivated by various reasons for which the Examiner has provided no citation. First, the person of skill in the art would have to have been motivated to value intellectual property instead of real estate. (Office Action, p. 7 (discussing base claim 28). Next, the person of skill in the art would have to have been motivated to look for data in at least one of a patent database, a trademark database, a copyright database, a technical literature database, a legal reporter database, a current events database and an intellectual property status database. (Office Action, p. 8). Finally, the person would have to have been motivated to make a better assessment of the estimated value of an intellectual property portfolio using such data. (Office Action, p. 8). However, the Office Action has failed to cite a reference that would teach or suggest to a person of skill in the art to do any of these numerous modifications of *Hough*. The Office Action has not even cited a disclosure in a reference regarding an intellectual property related database, much less using that database to determine the at least one of the financial quality and the financial quantity of the intellectual property portfolio. Rather, the Office Action has merely used hindsight

and conclusory statements to reject claim 44. For at least this reason, the obviousness rejection of claim 44 should be reversed.

Regarding claim 45, the Office Action alleges that because "*Hough* teaches taking into consideration various attributes such as the number of bedrooms, the neighborhood, age of the house, and other features and/or options related to a subject real estate property in determining its value," it would have been obvious to one of ordinary skill in the art to use attributes or characteristics related to intellectual properties. Furthermore, beyond alleging that a person of skill in the art would have been motivated to modify *Hough* to value an intellectual property portfolio, the Office Action appears to be alleging that this person would have known what attributes of intellectual property indicate value in order to make this rejection. In other words, this person would have known to use the following "first information" including:

patent information derived from the patents in the patent portfolio comprising at least one of the following: number of claims, length of independent claims, number and dates of references cited, number of classes searched, legal status of the patents, number of years until each of the patents expire, group which examined each of the patents, domestic priority, and foreign priority.

However, the Office Action has failed to cite a reference that identifies any of these characteristics as being used to determine the value of an intellectual property portfolio. *Pakes* merely discusses valuing an option as discussed above, and cannot be used to cure the deficiencies of *Hough*. Here again, for at least the reason that the Office Action has used hindsight and conclusory statements to reject a claim, the obviousness rejection of claim 45 should be reversed.

Regarding claim 46, the Office Action stated "as per the limitation of the 'frequency with which the patents have been cited as references for other patents', *Hough* discloses considering features of other real estate properties and which other kinds or similar properties were sold in estimating the value of a subject property." (Office Action, p. 9). The Office Action also cited

Figures 15-16 and 18-19. The disclosure and figures in *Hough* have nothing to do with the "frequency with which the patents have been cited as references for other patents" because the concept of citation is completely irrelevant in real estate. *Hough* simply does not describe this feature. Also, *Pakes* merely discusses valuing an option as discussed above and does not discuss using frequency of citation as a characteristic, and thus, *Pakes* cannot be used to cure the deficiencies of *Hough*. Here again, for at least the reason that the Office Action has used hindsight and conclusory statements to reject a claim, the obviousness rejection of claim 46 should be reversed.

Furthermore, Appellant requested that the Examiner provide a prior art reference describing the "frequency with which the patents have been cited as references for other patents" feature in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 46 should be withdrawn.

Regarding claim 47, the Office Action alleges that "Hough teaches determining differences in value by weighing the values of the subject property and comparing such with the values of other properties and/or other recently sold properties." This is a conclusory statement that lacks support because the Office Action has not cited any portion of *Hough* discussing this feature. The Office Action has merely paraphrased the claim in order to reject it. Thus, for at least the reason that the Office Action has used hindsight and conclusory statements to reject this claim, the obviousness rejection of claim 47 should be reversed.

Furthermore, Appellant requested that the Examiner provide a prior art reference describing using weighing techniques for different variables in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have

been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 47 should be withdrawn.

Regarding claim 48, the Office Action on pages 5-7 failed to establish that *Hough* or *Pakes* discusses the features of claim 48. Claim 48 recites:

48. A computer assisted process according to claim 42,  
wherein the intellectual property portfolio includes issued patents, and at  
least one of trademarks, trade secrets and copyrights, and  
wherein the information are derived by analyzing the issued patents, and  
the at least one of trademarks and copyrights.

For at least the reason that the Office Action has failed to address all the limitations of claim 48, the claim cannot be found obvious. Specifically, the Office Action has failed to complete at least two of the *Graham* factual inquiries. Those inquiries being "determining the scope and contents of the prior art" and "ascertaining the differences between the claimed invention and the prior art" as discussed above. For example, it has completely ignored the "wherein the intellectual property portfolio includes issued patents, and at least one of trademarks, trade secrets and copyrights" feature and has not even cited a reference disclosing this feature. Thus, for at least the reason that the *Graham* factual inquiries have not been completed, the rejection of claim 48 should be reversed.

Regarding claim 49, the Office Action alleges that "Hough teaches the estimated value of the subject properties is derived substantially independent of accounting valuation techniques including cost, market and income approaches." This rejection is even more egregious than that of claim 47 because the Office Action has merely recited the language of claim 20 in order to reject claim 49. Furthermore, it has failed to cite any section of *Hough* that teaches the features of claim 49. Thus, for at least the reason that the Office Action has used hindsight and conclusory statements to reject this claim, the obviousness rejection of claim 49 should be reversed.

Regarding claim 50, the Office Action on p. 9 alleges that "Hough teaches the first information is statistically similar to the second information of one of the representative real estate properties" in col. 4, line 5 to col. 7, line 60. The Office Action also asserted that a curve fitting technique or a standard deviation technique is well known in the art. Furthermore, the Office Action also alleged that it would have been "obvious to one of ordinary skill in the art to use in the system of *Hough* in order to determine a closest match between one property and the property being evaluated." However, the language of claim 50 recites:

50. A computer assisted process according to claim 42, wherein the information of the intellectual property portfolio is determined to be statistically similar to the quality data of the intellectual property portfolio utilizing at least one of a curve fitting technique and a standard deviation technique.

(emphasis added). Yet, *Hough* teaches selecting the properties that are comparable to the subject property before doing any math, whereas in claim 50 statistical similarity is determined by "utilizing at least one of a curve fitting technique and a standard deviation technique." Specifically, *Hough* states in col. 1, lines 41-46:

Briefly, the present invention relates to a system and method for **determining comparative values of comparable properties** based on combining and comparing assessment data and sales data of the comparable properties to ultimately determine a value for a particular property, called the subject property.

(emphasis added). In addition, *Hough*, col. 4, lines 45-57 provide:

Turning to FIG. 2, a general outline of the steps according to the present invention are shown. The first step which is necessary in the first embodiment is **to identify comparable property (recently sold and currently for sale) in the same tax district and class** (and hence same tax rate) as the subject property, shown at step 20. This may be done through the use of the table of data stored in the storage bank 17, as will be explained hereinafter, or by "in-the-field" investigations. It is preferable, but not necessary, that the comparable properties be in the **same general location or neighborhood**, and perhaps even the same street, to serve as the best "comparable properties".

(emphasis added). The Office Action appears to be confusing *Hough's* "comparability" with the "similarity" of claim 50. In other words, "utilizing at least one of a curve fitting technique and a

standard deviation technique" is pointless in *Hough* for determining whether properties are comparable. *Hough* discusses considering geography, tax district and class in determining comparability, and this type of information is not quantitative and thus not useful for determining statistical similarity. For example, *Hough* does not disclose using proximity, which is a measurable quantity, but rather discussed information such as same general location, tax district, and class which is not useful in curve fitting techniques or a standard deviation techniques. Thus, *Hough* does not teach the features as alleged in the Office Action, and the Examiner's assertions of what is well known in the art fail to remedy the shortcomings of *Hough*. Hence the rejection of claim 50 as obvious should be reversed.

Furthermore, Appellant disagreed with the Examiner that curve fitting techniques or standard deviation techniques are well known with respect to intellectual property valuation. Appellant requested that the Examiner provide a prior art reference describing this feature in the context of intellectual property valuations or an affidavit under 37 C.F.R. § 1.104(d)(2) providing details of why it would have been obvious. However, no such reference and no such affidavit have been provided. Therefore, for at least this reason, the obviousness rejection of claim 50 should be withdrawn.

Regarding claim 51, the Office Action on page 10 alleged that Figs. 12 and 15-18 of *Hough* describe "the objectively determinable values of the real estate properties include objectively determinable monetary values." However, the language of claim 51 recites:

51. A computer assisted process according to claim 42, wherein the information includes valuation indicators,

wherein the valuation indicators are assigned an importance factor based upon predetermined criteria and equivalents thereof, and

wherein the valuation indicators are compared to the quality data and the at least one of the financial quality and the financial quantity of the intellectual property portfolio is determined responsive to the importance factor of the valuation indicators.



Clearly, in the context of claim 51, the first information, the first valuation indicators, the empirical data, the estimated intellectual property worth indicator, and the importance factor based on predetermined criteria all relate to intellectual property as indicated by the claim language and not real estate. Thus, "objectively determinable values of the real estate properties" are not relevant to and cannot describe claim 51.

Furthermore, for at least the reason that the Office Action has failed to address all the limitations of claim 51, the claim cannot be found obvious. Specifically, the Office Action has failed to complete at least two of the *Graham* factual inquiries. Those inquiries being "determining the scope and contents of the prior art" and "ascertaining the differences between the claimed invention and the prior art" as discussed above. For example, it has completely ignored the "wherein the valuation indicators are assigned an importance factor based upon predetermined criteria and equivalents thereof" feature. Thus, for at least the reason that the *Graham* factual inquiries have not been completed, the rejection of claim 51 should be reversed.

Regarding claim 52, the Office Action cited Figs. 12 and 15-18 of *Hough*. Claim 52 recites: "A computer assisted process according to claim 42, wherein the information of the intellectual property portfolio includes an objectively determinable monetary value." In the context of claim 52, the "information of the intellectual property portfolio" is unrelated to "values of the real estate properties" because *Hough* describes valuing real estate and not intellectual property. Furthermore, the Office Action has failed to identify a passage in *Pakes* that discusses "information of the intellectual property portfolio." Since the Office Action has failed to identify a teaching in a reference that describes the features of claim 52, the rejection of claim 52 should be reversed.

Regarding claim 53, the Office Action cited *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49. However, the language of claim 53 recites:

53. A computer assisted process according to claim 52, wherein the objectively determinable monetary value of the intellectual property portfolio is determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the intellectual property portfolio.

This rejection is inconsistent with the rejection of claim 52. The rejection cited Figs. 12 and 15-18 as disclosing "wherein the first information of the intellectual property portfolio includes an objectively determinable monetary values." However, with respect to claim 53, because claim 53 relates to intellectual property, none of the items in Figs. 12 and 15-18 describe:

wherein the objectively determinable monetary value of the intellectual property portfolio is determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the intellectual property portfolio.

Furthermore, *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49 cannot remedy the deficiencies of the cited figures because those sections also describe real estate. Nor does *Pakes* cure the shortcomings of *Hough*. Therefore, because the Office Action has failed to identify a teaching in a reference that describes the features of claim 53, the rejection of claim 53 should be reversed.

Regarding claim 54, the Office Action cited *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49. However, the language of claim 54 recites:

54. A computer assisted process according to claim 42, wherein the information includes at least one of prior adjudication values, prior license values, and prior purchase values.

This rejection is inconsistent with the rejection of claim 54, the rejection cited Figs. 12 and 15-18 as disclosing "wherein the first information of the **intellectual property portfolio** includes an objectively determinable monetary value." (emphasis added). However, with respect to claim 54, because claim 54 relates to intellectual property, none of the items in Figs. 12 and 15-18 describe "wherein the information includes at least one of prior adjudication values, prior license values, and prior purchase values."

Furthermore, *Hough*, col. 1, line 41 – col. 2, line 49 and col. 4, lines 5-49 cannot remedy the deficiencies of those figures because those sections also describe real estate. Nor does *Pakes* cure the shortcomings of *Hough*. Therefore, because the Office Action has failed to identify a teaching in a reference that describes the features of claim 54, the rejection of claim 54 should be withdrawn.

Accordingly, for at least the reason that dependent claims 43-54 contain allowable subject matter as discussed above regardless of whether claim 42 is allowable, the rejection of claims 43-54 should be reversed.

#### **H. Rejection of Independent Claim 55**

The Final Office Action rejected independent claim 55 as allegedly obvious over the combination of *Hough* considered with *Pakes*. Applicant respectfully disagrees. The framework of the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), which was reaffirmed in *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007). Obviousness is a question of law based on underlying factual inquiries, and the factual inquiries enunciated by the Court are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art;  
and
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. For at least the reasons set forth herein, Applicant respectfully disagrees with the rejection and requests that the rejection be reversed.

### 1. Discussion of the References

*Hough* describes a "system and method for computing a comparative value of **real estate**." (See Title) (emphasis added). According to the *Hough* abstract, this method can be accomplished in the following manner:

A price/tax factor is computed for each comparable property by dividing the sale (or sold) price of the comparable property by its base tax. The price/tax factor for each comparable property is then multiplied by the base tax of the subject property to generate a net comparative value for each comparable property. To take into account appreciation for recently sold properties, an average appreciation is obtained for the area in which the subject and comparable properties are located. The average appreciation is pro rated to determine the comparative value for each comparable property. On the basis of the comparative values and other pertinent information, the value of the subject property may be set by a real estate agent, bank, appraiser, etc.

*Pakes* describes an academic methodology for valuing the option of whether to hold a patent based on economics. Specifically, *Pakes* states the following on p. 755:

This paper presents and then estimates a model, which allows us to recover the **distribution of returns** from holding patents at each age over the lifespan of patents **from information on patent renewals**.

Thus, *Pakes* relates to using patent renewals to determine an estimate of distribution of returns from holding a patent. *Pakes* does not present information regarding estimating the value of a patent itself.

## 2. No Reasonable Expectation of Success

Application respectfully submits that the Examiner has failed to show any reasonable expectation of success for the combination of *Hough* and *Pakes*. A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods **with no change in their respective functions**, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 435 (1976) (emphasis added). Also, if the **proposed modification or combination of the prior art would change the principle operation of the prior art invention** being modified, then the teachings of the references are **not sufficient** to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (emphasis added).

The Examiner alleged:

[O]ne of ordinary skill in the art desiring to objectively determine the **value of intellectual property portfolio** would have **turned to the teachings of Pakes in order to provide the proper variables** related to a patent or patent applications for incorporating such in the method and system of *Hough*.

(Final Office Action, p. 4) (emphasis added). However, *Pakes* does not teach the proper variables, much less "quality data relating to known intellectual property portfolios."

Specifically, the Examiner contends that because *Pakes* is entitled "Patents as options: Some estimates of the value of holding European patent stocks," it suggests estimating the value of patents. (See page 2 of the Final Office Action). However, the title of *Pakes* describes the **value of holding** the patent. In other words, the title describes valuing **an option, not intellectual property**. The option being whether to hold a patent by continuing to pay

maintenance fees. "Determining at least one of an estimated quality and quantity" is not the same thing as estimating the value of an option.

Further, the Examiner states that in determining whether maintenance fees should be paid, "*Pakes* determines the current value of the patent and whether the patent would provide future returns." (See page 4 of the Final Office Action). Appellant respectfully disagrees. *Pakes* only teaches the latter because it calculates the returns based on the investment in the renewal fee. *Pakes* does not teach using the value of the patent itself in the returns calculation. Pages 764 and 776, which were cited by the Examiner, illustrate this point. *Pakes*, p. 764 discloses the Markov process which "generates the returns from holding a patent." Similarly, p. 776 merely discloses a distribution of returns from holding the patents and not the actual value of the patents. The Examiner has not shown how these pages disclose determining at least one of an estimated quality and quantity of an intellectual property portfolio nor has he indicated which variable in the Markov process formula allegedly represents the value of the patents.

Since *Pakes* teaches valuing an option instead of "determining at least one of an estimated quality and quantity," it does not say what the Examiner alleges it discloses. Thus, a person of ordinary skill in the art would be forced to change the function of the method disclosed in *Pakes* to calculate the estimated quality or quantity instead of the returns from holding it. Because this person of ordinary skill would have had to change *Pakes*, under the standard from *KSR* cited above, there can be no reasonable expectation of success for the combination of *Hough* and *Pakes*. Moreover, changing *Pakes* to value patents instead of options would change the principle operation of *Pakes* which is calculating the returns for paying maintenance fees.

In addition, though the Examiner alleged that a person of ordinary skill in the art would have turned to the teachings of *Pakes* in order to provide the proper variables, the Examiner also contends that the type of data does not provide patentable differences when viewing the system

of *Hough*. Yet, the type of data is different in important ways. For example, the number of references cited or number of classes searched can be gathered for a patent and a high value assigned to the indicator when the patent lists many classes or many cited references. There is simply no analog for this type of data for real property. Even a neighborhood is not similar to a class because a house generally only lies in one neighborhood. The type of data does provide a patentable difference over *Hough*.

Additionally, the Final Office Action failed to cite any reference disclosing:

wherein the intellectual property databases includes at least one of a patent database, a trademark database, a technical literature database, a copyright database, a legal reporter database, a current events database and an intellectual property status database, and equivalents thereof.

Since neither *Hough* nor *Pakes* has been shown to teach these features of claim 55, an obviousness rejection of claim 55 cannot be sustained. The Examiner must give patentable weight to ALL of the claim limitations. Thus, the rejection of claim 55 must be reversed.

Furthermore, even if the only difference was the type of data, this application is not completely shown or suggested by the prior art because *Pakes* does not disclose the data for determining at least one of an estimated quality and quantity. *Pakes* discloses valuing options. Therefore, in any case, claim 55 patentably distinguishes over *Hough* and *Pakes*.

Moreover, there is also no reasonable expectation of success because *Pakes* is flawed. *Pakes* does not consider that money used in renewing patents may alternatively be used for other purposes that could obtain greater return. In other words, *Pakes* ignores the subjective opportunity cost in his methodology. It is highly possible that valuable patents were never renewed because the owner had a better use of his money. Though using the money to renew a patent might have had a significant return, the owner may have had an even more profitable opportunity. Thus, it is highly possible that the *Pakes* methodology places a premium or is skewed in favor of patent owners that do not effectively use their limited resources, except for

paying patent renewals. More specifically, patents that have not been renewed are worth nothing. Thus, overall, *Pakes* cannot be used at all to determine at least one of an estimated quality and quantity.

*Pakes* also assumes that payment of the renewal fees must be based on a direct correlation to economic return that fully supports the renewal fee payments. However, *Pakes* does not even consider that there may be a strong percentage of renewal fees that are paid because the incremental cost to the owner is not significant with respect to the cost already incurred in obtaining the patent. In addition, *Pakes* does not consider that renewal fees may be paid even if the patents represent a losing proposition because the cost of the renewal might not be considered significant to the owner. *Pakes* further does not consider that the patents themselves may not have direct revenue uses, but might be related to existing income streams that justify the renewal fees, even though the patents themselves do not support the renewal fees.

Thus, because *Pakes* does not disclose determining at least one of an estimated quality and quantity and also is flawed, there could not be a reasonable expectation of success. Accordingly, the rejection of claim 55 as obvious in view of the combination of *Hough* and *Pakes* should be reversed.

### **3. The Examiner has Failed to Ascertain the Level of Ordinary Skill in the Art**

"The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991). The examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in the remote arts, or to geniuses in the art at hand. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *cert.*



denied, 464 U.S. 1043 (1984). To be objective, the examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made.

On p. 6, the Final Office Action alleges that "it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of [...] intellectual property." This statement assumes that this person of ordinary skill in the art would have expertise both in valuing real estate and in determining the quality or quantity of an intellectual property portfolio. Appellant asserts that such a person would be a person of **extraordinary** skill and is contrary to the standard. The data is not interchangeable because specialized skills are needed to choose the appropriate data to evaluate. In other words, a real estate agent would not likely know what data to use to value a patent and would not learn them by reading *Pakes*. Likewise, a patent agent would probably be befuddled by the meanings of "phase value" and "assessment percentage" and not be aware of analogous characteristics for a patent.

Accordingly, because the Examiner has failed to ascertain the level of ordinary skill in the art, he has not completed the *Graham* factual inquiries. Therefore, obviousness rejection of claim 55 was improper and should be reversed.

#### **4. No Reason to Combine Real Property Prior Art with Intangible Property Prior Art**

The Examiner has failed to provide a reason to combine prior art about real property with prior art regarding intangible property. The Examiner merely made the following conclusory statements regarding the alleged motivation to combine. First, The Final Office Action on p. 6 alleged:

[I]t would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a

desired type of environment in order to determine the value of a subject property such as an intellectual property.

Second, the Final Office Action on p. 7 alleged: "The motivation would have been to assess the value of an intellectual property." The Examiner failed to provide any citations in either *Pakes* or *Hough* for these apparent motivations. Also, these statements fail to supply any motivation because valuing an intellectual property portfolio is possible without using the techniques *Hough* has described. Furthermore, it is not clear what the Examiner means by "in a desired type of environment" nor is it clear that the Examiner has alleged that even to be a motivation because the motivation appears to be "to determine the value of a subject property such as an intellectual property." One does not need the teachings of *Hough* "to determine the value of a subject property such as an intellectual property." So, not only does the alleged motivation fail to come from *Hough* or *Pakes*, these statements by the Examiner simply fail to be motivating.

Furthermore, because *Pakes* and *Hough* are so unrelated because one discusses valuing options relating to intangible property and the other describes valuing real property, it seems that a motivation to combine coming from a reference is even more important. In other words, real property and intangible property are so different that it seems unlikely that combining prior art regarding them would be obvious to a person of skill in the art. For example, to highlight some of the differences, real property does not expire the way patents or copyrights do because the government grants these intellectual property rights for a limited time. Furthermore, an adjudication of invalidity could extinguish the patent, whereas there is no analog in the area of adjudication regarding real property. Likewise, frequency of citations may indicate value for a patent, whereas that concept is irrelevant for real property.

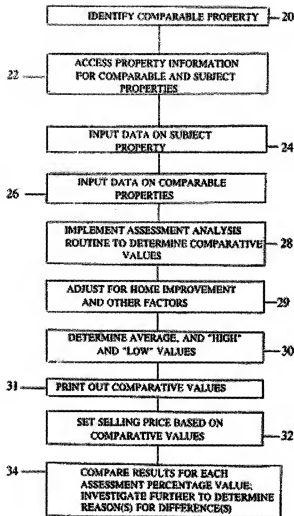
Therefore, the Examiner has failed to establish a reason to combine prior art about real property and prior art regarding intangible property, and hence has provided no reason to

combine *Pakes* and *Hough*. Therefore, the obviousness rejection of claim 55 is improper and should be reversed.

#### **5. Resulting Combination Still Does Not Include All Elements of the Claims**

Even if *Pakes* and *Hough* were combined, the combination of *Pakes* and *Hough* would still fail to describe all the elements in the embodiment in claim 55. As discussed above, *Hough* describes a "system and method for computing a comparative value of real estate" (See *Hough*, Title), and *Pakes* describes valuing an option, the option of whether to pay patent maintenance fees. Thus, at a high level of abstraction, the resulting combination of *Pakes* and *Hough* is merely a system and method for computing a comparative value of an option. This is not the combination that Applicant has claimed.

Even at lower levels of abstraction, the combination fails to describe the features of claim 55. In other words, the computations disclosed in *Hough*, as described in Figs. 2 and 3, with data regarding the value of an option plugged in, still fails to describe the features of claim 55. Specifically, Fig. 2 is depicted below:



For example, Fig. 2, item 20 states "identify comparable property" and col. 4, lines 46-60 further describe this step as:

The first step which is necessary in the first embodiment is to **identify comparable property** (recently sold and currently for sale) in the same tax district and class (and hence same tax rate) as the subject property, shown at step 20. **This may be done through the use of the table** of data stored in the storage bank 17, as will be explained hereinafter, **or by "in-the-field" investigations**. It is preferable, but not necessary, that the comparable properties be in the **same general location or neighborhood**, and perhaps even the same street, to serve as the best "comparable properties".

(emphasis added). However, claim 55 recites:

55. A computer assisted process for determining at least one of an estimated quality and quantity of an intellectual property portfolio, the process comprising the steps of:

(a) analyzing the intellectual property portfolio stored in an intellectual property database;

(b) deriving information responsive to said analyzing step (a) based upon the intellectual property portfolio;

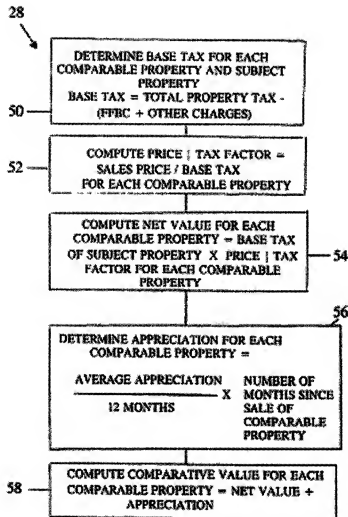
(c) retrieving, by a computer, quality data relating to known intellectual property portfolios, and equivalents thereof; and

(d) comparing the information derived in said deriving step (b) to the quality data retrieved from said retrieving step (c) producing an intellectual property quality indicator indicating the at least one of the estimated quality and quantity of the intellectual property portfolio,

wherein the intellectual property database includes at least one of a patent database, a trademark database, a technical literature database, a copyright database, a legal reporter database, a current events database and an intellectual property status database, and equivalents thereof.

Yet, *Hough* teaches selecting the properties that are comparable to the subject property without doing any math, whereas claim 55 does not require such selection. *Hough* teaches using a table, doing "in-the-field" investigations or looking at the neighborhoods to "identify" comparable properties. Therefore, for at least the reason that *Hough* requires an identification step, the combination of *Pakes* and *Hough* fails to describe the features of claim 55.

The statement that the combination of *Pakes* and *Hough* fails to describe the features of claim 55 is also true with respect to the computations disclosed by *Hough* in Fig. 3. Fig. 3 is depicted below.



When one tries to plug in data regarding valuing an option relating to a patent into the computations disclosed by *Hough*, the result is nonsensical. The concept of appreciation is meaningless with respect to options, and moreover, it is not helpful regarding patents. Patents are probably more likely to depreciate because new technologies may arise that replace what was claimed in a patent, rendering a patented technology obsolete. Also, patents expire, and thus,

become worthless at the end of the patent term. Furthermore, the concept of base tax is also irrelevant with respect to patents and options. It is not clear how one would plug in information regarding an option into a base tax calculation. Thus, the combination fails to disclose the features of claim 55.

The Final Office Action on p. 3-4 alleged:

the method and system [of *Hough*] perform similarly as the applicant's claimed invention with the **only difference being the type of data processed**. As such the Examiner had stated that since the means and steps found in *Hough* are similar to that of the claimed invention in determining the value of a real estate property. Introducing different types of data for performing the same steps or function would not provide patentable differences, as the result would only apply to the type of associated data.

(emphasis added). The Final Office Action on p. 6-7 alleged:

The only difference between the claimed invention and the teachings of *Hough* is the type of data being claimed. ***It is noted that the type of data does not affect the functioning of the system of Hough since in memory or computer manipulation, data is only data.*** The kind of data does not affect the functioning of the system. Thus, it would have been obvious to one of ordinary skill in the art to change the type of data so as to apply the principle or techniques applied in *Hough* in a desired type of environment in order to determine the value of a subject property such as an intellectual property.

(emphasis added). Applicant disagrees. As was demonstrated above, there are more differences than simply the type of data processed. *Hough* not only values real estate instead of intellectual property, it also requires an identification step, as discussed above. Furthermore, computations such as average appreciation and the ones involving base tax simply do not apply in the case of valuing intellectual property. So, not just the data is different, the computations are also different.

Because the Examiner has failed to establish that the combination discloses all the features of claim 55 at either a high or low level of abstraction, the Examiner has not proven that claim 55 is obvious. Therefore the rejection of claim 55 should be reversed.

**CONCLUSION**

Based upon the foregoing discussion, Applicants respectfully requests that the Examiner's final rejection of claims 15-55 be overruled and withdrawn by the Board, and that the application be allowed to issue as a patent with all pending claims.

Please charge deposit account No. 20-0778 in the amount of \$330 for the filing of this Appeal Brief. No additional fees are believed to be due in connection with this Appeal Brief. If, however, any additional fees are deemed to be payable, you are hereby authorized to charge any such fees to deposit account No. 20-0778.

Respectfully submitted,

  
\_\_\_\_\_  
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**VIII. CLAIMS - APPENDIX**

1-14. (Cancelled).

15. A computer assisted process for determining an estimated value of an intellectual property portfolio, the process comprising the steps of:

(a) storing, by a computer, first objectively determinable characteristics of representative intellectual property portfolios and objectively determinable values corresponding to each of the representative intellectual property portfolios, the first objectively determinable characteristics and the objectively determinable values forming a baseline against which to assess the estimated value of the intellectual property portfolio;

(b) analyzing the intellectual property portfolio to determine second objectively determinable characteristics of the intellectual property portfolio to be estimated;

(c) deriving first information representing the second objectively determinable characteristics of the intellectual property portfolio to be estimated responsive to said analyzing step (b);

(d) retrieving second information representing the first objectively determinable characteristics and the objectively determinable values of the representative intellectual property portfolios; and

(e) comparing the first information received from said deriving step (c) to the second information received from said retrieving step (d) producing an estimated value of the intellectual property portfolio when the first information of the intellectual property portfolio is statistically similar to the second information of one of the representative intellectual property portfolios.

16. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the intellectual property portfolio comprises at least one patent, trademark, trade secret and copyright intellectual property.

17. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein at least one of a patent database, a trademark database, a copyright database, a technical literature database, a legal reporter database, a current events database and an intellectual property status database are utilized to determine the estimated value of the intellectual property portfolio.

18. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15,

wherein the intellectual property portfolio comprises a patent portfolio including patents, and

wherein the first objectively determinable characteristics includes patent information derived from the patents in the patent portfolio comprising at least one of the following: number of claims, length of independent claims, number and dates of references cited, number of classes searched, legal status of the patents, number of years until each of the patents expire, group which examined each of the patents, domestic priority, and foreign priority.

19. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 18, wherein the patent information further includes frequency with which the patents have been cited as references for other patents.

20. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, further comprising the step of weighing each of the first and second objectively determinable characteristics according to predetermined weighing factors producing weighed first and second objectively determinable characteristics, and

comparing the weighed first and second objectively determinable characteristics to determine the statistical similarity between the weighed first and second objectively determinable characteristics.

21. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15,

wherein the intellectual property portfolio includes issued patents, and at least one of trademarks and copyrights, and

wherein the first objectively determinable characteristics are derived by analyzing the issued patents, and the at least one of trademarks, trade secrets and copyrights.

22. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the estimated value of the intellectual property portfolio is derived substantially independent of accounting valuation techniques including cost, market and income approaches.

23. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the first information of the intellectual property portfolio is determined to be statistically similar to the second information of one of the representative intellectual property portfolios utilizing at least one of a curve fitting technique and a standard deviation technique.

24. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15,

wherein the first objectively determinable characteristics include first valuation indicators,

wherein the first valuation indicators are assigned an importance factor based upon predetermined criteria, and

wherein the first valuation indicators are compared to the second objectively determinable characteristics and the estimated value of the intellectual property portfolio is determined responsive to the importance factor of each of the valuation indicators.

25. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the objectively determinable values of the representative intellectual property portfolios include objectively determinable monetary values.

26. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 25, wherein the objectively determinable monetary values of the representative intellectual property portfolios are determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the representative intellectual property portfolios.

27. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 15, wherein the first objectively determinable characteristics include at least one of prior adjudication values, prior license values, and prior purchase values.

28. A computer assisted process for determining an estimated value of an intellectual property portfolio, the process comprising the steps of:

- (a) analyzing the intellectual property portfolio;
- (b) deriving first information responsive to said analyzing step (a) based upon the intellectual property portfolio;
- (c) retrieving, by a computer, empirical data relating to known intellectual property portfolios; and
- (d) comparing the first information derived in said deriving step (b) to the empirical data retrieved from said retrieving step (c) producing an estimated intellectual property worth indicator indicating the worth of the intellectual property portfolio.

29. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the intellectual property portfolio comprises at least one patent, trademark, trade secret and copyright intellectual property.

30. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein at least one of a patent database, a trademark database, a copyright database, a legal reporter database, a technical literature database, a current events database and an intellectual property status database are utilized to determine the estimated intellectual property worth indicator of the intellectual property portfolio.

31. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28,

wherein the intellectual property portfolio comprises a patent portfolio including patents, and

wherein the first information includes patent information derived from the patents in the patent portfolio comprising at least one of the following: number of claims, length of independent claims, number and dates of references cited, number of classes searched, legal status of the patents, number of years until each of the patents expire, group which examined each of the patents, domestic priority, and foreign priority.

32. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 31, wherein the patent information further includes frequency with which the patents have been cited as references for other patents.

33. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, further comprising the step of weighing each of the first information and the empirical data according to predetermined weighing factors producing weighed first information and weighed empirical data respectively, and said comparing step (d) further comprises the step of comparing the weighed first information and the weighed empirical data to determine similarity there between to determine the estimated intellectual property worth indicator.

34. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28,

wherein the intellectual property portfolio includes issued patents, and at least one of trademarks, trade secrets and copyrights, and

wherein the first information are derived by analyzing the issued patents, and the at least one of trademarks and copyrights.

35. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the estimated intellectual property worth indicator of the intellectual property portfolio is derived substantially independent of accounting valuation techniques including cost, market and income approaches.

36. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the first information of the intellectual property portfolio is determined to be statistically similar to the empirical data of the intellectual property portfolio utilizing at least one of a curve fitting technique and a standard deviation technique.

37. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28,

wherein the first information includes first valuation indicators,

wherein the first valuation indicators are assigned an importance factor based upon predetermined criteria, and

wherein the first valuation indicators are compared to the empirical data and the estimated intellectual property worth indicator of the intellectual property portfolio is determined responsive to the importance factor of the first valuation indicators.

38. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the first information of the intellectual property portfolio includes an objectively determinable monetary value.

39. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 38, wherein the objectively determinable monetary value of the intellectual property portfolio is determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the intellectual property portfolio.

40. A computer assisted process for determining an estimated value of an intellectual property portfolio according to claim 28, wherein the first information includes at least one of prior adjudication values, prior license values, and prior purchase values.

41. A process for determining an estimated value of an intellectual property portfolio, the process comprising the steps of:

- (a) analyzing the intellectual property portfolio, and equivalents thereof;
- (b) deriving first information responsive to said analyzing step (a) based upon the intellectual property portfolio, and equivalents thereof;
- (c) retrieving empirical data relating to known intellectual property portfolios, and equivalents thereof; and
- (d) comparing the first information derived in said deriving step (b) to the empirical data retrieved from said retrieving step (c) producing an intellectual property worth indicator indicating the worth of the intellectual property portfolio, and equivalents thereof,

wherein the intellectual property includes information obtained from at least one of a patent, a trademark, technical literature, a copyright, legal reporter information, current events and an intellectual property status information.

42. A computer assisted process for determining at least one of a financial quality and financial quantity of an intellectual property portfolio, the process comprising the steps of:

- (a) analyzing the intellectual property portfolio stored in an intellectual property database;
- (b) deriving information responsive to said analyzing step (a) based upon the intellectual property portfolio;
- (c) retrieving, by a computer, quality data relating to known intellectual property portfolios; and
- (d) comparing the information derived in said deriving step (b) to the quality data retrieved from said retrieving step (c) to determine an intellectual property factor indicating the at least one of the financial quality and the financial quantity of the intellectual property portfolio.

43. A computer assisted process according to claim 42, wherein the intellectual property portfolio comprises at least one patent, trademark, trade secret and copyright intellectual property.

44. A computer assisted process according to claim 42, wherein at least one of a patent database, a trademark database, a copyright database, a legal reporter database, a technical literature database, a current events database and an intellectual property status database are utilized to determine the at least one of the financial quality and the financial quantity of the intellectual property portfolio.

45. A computer assisted process according to claim 42,  
wherein the intellectual property portfolio comprises a patent portfolio including patents,  
and

wherein the information includes patent information derived from the patents in the patent portfolio comprising at least one of the following: number of claims, length of independent claims, number and dates of references cited, number of classes searched, legal status of the patents, number of years until each of the patents expire, group which examined each of the patents, domestic priority, and foreign priority.

46. A computer assisted process according to claim 45, wherein the patent information further includes frequency with which the patents have been cited as references for other patents.

47. A computer assisted process according to claim 42, further comprising the step of weighing each of the information and the quality data according to predetermined weighing factors producing weighed information and weighed empirical data respectively, and said comparing step (d) further comprises the step of comparing the weighed information and the weighed empirical data to determine similarity there between to determine the estimated intellectual property worth indicator.

48. A computer assisted process according to claim 42,  
wherein the intellectual property portfolio includes issued patents, and at least one of trademarks, trade secrets and copyrights, and

wherein the information are derived by analyzing the issued patents, and the at least one of trademarks and copyrights.



49. A computer assisted process according to claim 42, wherein the at least one of the financial quality and the financial quantity of the intellectual property portfolio is derived substantially independent of accounting valuation techniques including cost, market and income approaches.

50. A computer assisted process according to claim 42, wherein the information of the intellectual property portfolio is determined to be statistically similar to the quality data of the intellectual property portfolio utilizing at least one of a curve fitting technique and a standard deviation technique.

51. A computer assisted process according to claim 42, wherein the information includes valuation indicators,

wherein the valuation indicators are assigned an importance factor based upon predetermined criteria and equivalents thereof, and

wherein the valuation indicators are compared to the quality data and the at least one of the financial quality and the financial quantity of the intellectual property portfolio is determined responsive to the importance factor of the valuation indicators.

52. A computer assisted process according to claim 42, wherein the information of the intellectual property portfolio includes an objectively determinable monetary value.

53. A computer assisted process according to claim 52, wherein the objectively determinable monetary value of the intellectual property portfolio is determined by at least one of prior adjudication, prior license values, prior purchase values and an accountant evaluation based upon generally acceptable accounting procedures (GAAP) of the intellectual property portfolio.

54. A computer assisted process according to claim 42, wherein the information includes at least one of prior adjudication values, prior license values, and prior purchase values.

55. A computer assisted process for determining at least one of an estimated quality and quantity of an intellectual property portfolio, the process comprising the steps of:

(a) analyzing the intellectual property portfolio stored in an intellectual property database;

(b) deriving information responsive to said analyzing step (a) based upon the intellectual property portfolio;

(c) retrieving, by a computer, quality data relating to known intellectual property portfolios, and equivalents thereof; and

(d) comparing the information derived in said deriving step (b) to the quality data retrieved from said retrieving step (c) producing an intellectual property quality indicator indicating the at least one of the estimated quality and quantity of the intellectual property portfolio,

wherein the intellectual property database includes at least one of a patent database, a trademark database, a technical literature database, a copyright database, a legal reporter database, a current events database and an intellectual property status database, and equivalents thereof.

**IX. EVIDENCE - APPENDIX**

None.

**IX. RELATED PROCEEDINGS- APPENDIX**

Ex parte Irah H. Donner is a Board of Patent Appeals and Interferences decision regarding concerning Application 08/161,816 entitled "Intellectual Property Audit System" filed December 6, 1993. (Appeal No. 96-2552) The Board reversed the decision of the Examiner regarding patentable subject matter under 35 U.S.C. §101, and U.S. Patent No. 5,997,907 was issued. A copy of the decision is submitted along with this appeal brief.